

ISSN 2334-847X (Printed)
ISSN 2334-8496 (Online)



INTERNATIONAL JOURNAL OF
COGNITIVE
RESEARCH
IN SCIENCE, ENGINEERING AND EDUCATION

I J C R S E E

Volume 1, Issue 2, December 2013.



**International Journal of Cognitive Research in Science, Engineering and Education
(IJCRSEE)**

EDITORIAL

Psychology within the postnonclassical paradigm returns to the study of the whole man, extended to the world, and these issues are under active development at the moment, both in foreign and national psychology, corresponding to the formation of the humanitarian paradigm in psychology.

Lines of development of the psychological science are expressed both in an adaptive, evolutionary paradigm, and in the development of the synergetic paradigm that is associated with the idea of the multiple development options. The first paradigm, woven from a variety of the philosophical ideas, is represented by the basic category of reflection and documented in the traditional definition of psychology as a science aimed at studying the evolution of the mental reflection. The second direction involves the revision of the subject of psychology, the transition to the problems of man, meaning the drift of the psychological science to the "human psychology". General line of the psychological knowledge, if we consider the existing publications, clearly expresses the anthropocentric nature of studies: human problems become central in the development of the psychological knowledge.

The study of the psychology of the whole man and his cognitive mechanisms corresponds to the general trends of the society development, education reforms. The significance of the topical field associated with the study of the cognitive characteristics of the man in real life, opens fully in the event that if you try to understand it in the context of the objective tendencies manifested in the psychological science development. Anthropologization of the psychological knowledge today is manifested in the growth of the research interest to the issues of the cognitive processes and mechanisms.

This is due to the fact that science has accumulated a lot of experience of studying them from the standpoint of different approaches of psychology, but virtually no experience of studying them in the prism of new ideas, reflecting the effect of the paradigm shift happening in science (Klochko, V. E., Galazhinsky, E.V., 2000).

In recent years, the ideas about the mind and mental processes, reflective functions of the human mental activity were changing. These issues lead to the topics of reconstruction of the architectonics of the cognitive processes and consciousness, the development of which is a significant psychological issue. In this regard, the approach to understanding the consciousness in terms of the psychological systems theory allows to expand the ideas about the cognitive processes architectonics.

One can not ignore that the current level of the science development involves the use and development of new approaches to the man as a systemic phenomenon. This is due to the general direction of the science development, the transition to the "postnonclassical" science paradigms. In the methodology of science, a new level of systems thinking is formed, the subject of which is the study of the formation of the development as a way of systems life (Arshinov, V. I., 2005, Danilov, J. A., 2011, Haken, H., 2001, Knyazeva, E. N., Kurdyumov, S. P., 1992, Kostyuk, V. N., 2007, Mamardashvili, M. K., 1990, Tarasenko, V. V., 2009). In

this case, the study of the self-organization of the combined, open systems, laws of their development and functioning meets the actual needs of the developing psychological science, passing on to the cognition of the "psychological systems and their destinies". (Vygotsky, L. S., 1982).

The existence of the man in the world is manifested in the complex phenomenology of his behavior and various psychological components. You may find that there is a large and not yet uncovered layer of the psychological science that requires new ideas, tools for the study of how the cognition is carried out, how the coexistence with other human being in the world is organized, how the communications, activities and interactions of people are determined and regulated, how the community functions, develops and becomes *common* and transforms into the system.

Logic of the psychological science development itself determines the search for answers to the questions what represent and what are the psychological patterns of communications, activities, interactions of people, as well as their mechanisms, patterns of formation, development and self-organization. Significance of the issue is determined by that the society focuses and relies on the development of the creatively thinking and initiative people, capable of the collaborative creativity and self-development, and therefore needs to know the psychological patterns of the emergence, functioning and development of the basic foundations of the human life that are the cornerstone of the education, upbringing and employment. This determines the need for the development of the theoretical, methodological and empirical grounds for the interaction psychology, psychology of the combined psychological systems, aimed at studying the cognitive mechanisms, patterns of collaborative cognition, interaction, communication and various forms of activities. This can be proved by the annual conference (Cooperative Minds: Social Interaction and Group Dynamics, 2013; Building Bridges Across Cognitive Sciences Around the World, 2012; Cognition in Flux, 2010; 3rd Joint Action Meeting, 2009), organized in recent years by Cognitive Science Society, with the topics devoted to the study of the cognitive mechanisms and patterns of the social interaction and social cognition. Focus on the study of the cognitive processes of interaction is manifested in the growing publications on the studies of the collaborative cognitive phenomena, in particular, collaborative thinking (Belousova, A. K., 2002, Belousova, A. K., 2010, Caroline Marie Twomey Lamb, 2009).

Human interaction is a fundamental phenomenon that requires deeper elaboration than it is studied in various subject areas of psychology. This phenomenon affects different aspects of the human interaction with the world, forming a system in which one can explore the simultaneous openness of a man to oneself and to the world (Kostyuk, V. N., 2007) and hence to each participant. The latter means that the study of the psychological mechanisms of the world cognition and human interaction as the integral psychological systems will help to understand how the world comes to the man through the cognition and how the dialogueness of the consciousness is formed, how through the development of cultural space comes the formation of the active and cognizing man, "subject of life" (Rubinstein, S. L., 2003).

Relatively recently, on the crest of a new wave of interest to the system researches, which coincided with the development of a paradigm shift in psychology, a new direction emerged - the psychological systems theory, which allows to understand the man as a complex self-organizing psychological system that includes him and the corresponding part of the world. Psychological systems theory considers as a self-organization source the congruency of the interacting parties, which is understood as objectively existing relationship between the open system (any difficulty level) and the elements of its environment, without which its sustainable existence is impossible. (Klochko, V. E., Galazhinsky, E.V., 2000)

We believe that the study of the psychological mechanisms of the human interaction as a combined psychological system in the function of independent subject may lead to an un-

derstanding of the cognitive processes patterns through which the collaborative cognition of the world is carried out; to an understanding of the patterns of human interaction with the world and other people, cognitive interaction.

In a combined psychological system, comprising several interacting people, a particular person is represented by his meanings, values, estimates that, when expressed in actions, expressions, speech, behavior and other forms of being a human, create a certain personal space, structure personal boundaries, form a trust through the disclosure, reconstruction of which the cognition of the world, another person, oneself, interpersonal relationships happens. In our opinion, this is due to the fact that the combined psychological system provides favorable opportunities for the self-fulfillment and self-actualization of the person. During the problem solving dialogue, the participants by acting, implementing thinking and other cognitive processes fulfill themselves by them and through them. The focus of the self-actualization is associated with the dominant system of the life attitudes in the structure of a complex layer construction of man. Thus, in the acts of human interaction with the world is implemented and strengthened the hierarchy of values and attitudes of different levels, which are the basis of the person's self-fulfillment. Partner, or the Other in this situation acts as both a stabilizer of the formed values and meanings of the person's self-acceptance, and at the same time as a factor influencing their variability and plasticity.

In the modern socio-cultural conditions of a changing world, it is important to identify the cognitive processes and mechanisms underlying the constructive and destructive development of the person that can be expressed both in the form of the personal and professional creativity, in the processes of self-actualization and self-development, and also in the professional deformations, development of particular forms of human behavior.

Within the framework of the postnonclassical paradigm, the psychological research suggests the implementation of the process approach, which means the reconstruction of architectonics of the cognitive processes directed at the world, another person and oneself in the world, processes of becoming human in terms of the combined psychological system. The study of the processes that make up the architectonics of the combined and individual psychological systems, in our opinion, represents a promising vector of the psychological research development, aimed at studying the cognitive processes associated with the cognition of the world, another person and oneself in the world.

Editor:

Dr. Alla Belousova, Professor, Head of the Educational Psychology Department
Southern Federal University, Rostov-on-Don, Russia
E-mail: alla-belousova@newmail.ru

International Journal of Cognitive Research in Science, Engineering and Education
(IJCRSEE)

Address: Prvi Maj 18, 17501 Vranje, Serbia

Phone: +381 17 400 165, + 381 63 700 4281

Web: www.ijcrsee.com

E-mail: editor@ijcrsee.com

EDITORIAL TEAM

Editor in Chief

- Dr. Lazar Stošić, Editor in Chief International Journal of Cognitive Research in Science, Engineering and Education (IJCRSEE), Serbia
President of The Association for the Development of Science, Engineering and Education, Serbia
College of professionals studies educators, Aleksinac, Serbia

Editor

- Dr. Alla Belousova, Chair of Psychology of Education Faculty of Pedagogy and Practical Psychology Southern Federal University, Russian Federation
- Dr. Aneta Barakoska, Faculty of Philosophy, University St. Cyril and Methodius, Macedonia
- MSc. Sonja Veličković, College of professional studies educators, Aleksinac, Vice president of The Association for the Development of Science, Serbia

Associate editor

- Academic prof. dr. med. Angel Džambazovski, Institute of Applied Kinesiology with physiotherapy and chiropractic, Macedonia
- Academic prof. Radenko S. Krulj, Faculty of Philosophy, Department of Education, Kosovska Mitrovica, Serbia
- Prof. Dr. Nenad Suzić, University of Banja Luka, Faculty of Philosophy, Banja Luka, Republic of Srpska

Editorial board

- Dr. Abrosimova Larisa, The English Language Chair Language and Literature Department Southern Federal University, Russian Federation
- Dr. Svetlana Masalova, Chair of Philology and Art Institute of Professional Development of Education Workers, Russian Federation
- Dr. Marina Bogdanova, Department of Philosophy, Southern Federal University, Russian Federation
- Dr. Elena Brunova, Tyumen State University, Russian Federation
- Dr. Zeshui Xu, College of Sciences, PLA University of Science and Technology Nanjing, Jiangsu 210007, China

- Dr. Yejun Xu, Hohai University, China
- Dr. Shouzhen Zeng, College of Computer and Information , Zhejiang Wanli University, China
- Dr. Guiwu Wei, Chongqing University of Arts and ScienceS, China
- Dr. Hong-Mei Li, School of Marxism studies, Northeast Petroleum University, China
- Dr. Jue-Sam Chou, Information management department of Nanhua University, Taiwan, Taiwan, Province of China
- Dr. Alex L.S. Chan, Division of Social Sciences Room 5301, Academic Building 2 Community College of City University Tat Che Avenue, Kowloon Tong, Hong Kong
- Dr. Girija Chetty, University of Canberra, Australia
- Dr. José M. Merigó, Manchester Business School, University of Manchester, Booth Street West, M156PB Manchester, United Kingdom
- Dr. Siniša Opić, Faculty of teacher education, University of Zagreb, Croatia
- Dr. Vladimir Matić, Vocational Schools Vukovar, Croatia
- Dr. Ali Nouri, Malayer University, Humanities Faculty, Department of Educational Sciences, Iran
- Dr. Spyros Hoidas, Department of language and linguistics, Greece
- Prof. Dr. Nickolas S. Sapidis, University of Western Macedonia (Greece), Department of Mechanical Engineering, Bakola & Sialvera Str., Kozani 50100, Greece
- Dr. Slađana Zuković, Faculty of Philosophy, University of Novi Sad, Serbia
- Dr. Nebojsa J. Dimitrijevic, College of Applied Vocational Studies Vranje, Serbia
- Dr. Daliborka Popovic, College of professionals studies educators, Aleksinac, Serbia
- Dr. Dragana Stanojevic, University of Niš, Teacher Training Faculty in Vranje, Serbia
- Dr. Stojan Obradović, College of professionals studies educators, Aleksinac, Serbia
- Dr. Miroljub Joković, College of professionals studies educators, Aleksinac, Serbia
- Dr. Jelena Ž. Maksimović, Faculty of Philosophy, University of Niš, Serbia
- Dr. Zvezdan Arsić, Faculty of Philosophy, Department of Education, Kosovska Mitrovica, Serbia
- Dr Mićo Miletić, College of professionals studies Aleksinac, Serbia
- Dr. Milena Bogdanović, University of Niš, Teacher Training Faculty in Vranje, Serbia, Serbia
- Dr. Gordana Nikola Stankovska, Faculty of Philosophy, Department of Psychology, University State of Tetovo, Macedonia
- Dr. Vera Stojanovska, Faculty of Philosophy, University Ss. Cyril and Methodius, Skopje, Macedonia
- Dr. Elena Achkovska Leshkovska, Department of Psychology, Faculty of Philosophy in Skopje, Macedonia
- Dr. Violeta Arnaudova, Faculty of Philosophy, University St. Cyril and Methodius, Skopje, Macedonia
- Dr. Lena Damovska, The Institute of Pedagogy, Faculty of Philosophy, University Ss. Cyril and Methodius, Macedonia
- Dr. Suzana Miovska Spaseva, Institute of Pedagogy, Faculty of Philosophy, "Ss Cyril and Methodius" University in Skopje, Macedonia
- Dr. Orhideja Shurbanovska, University "St. Cyril and Methodius", Macedonia
- Dr. Borce Kostov, Faculty of Philosophy, University St. Cyril and Methodius, Skopje, Macedonia
- Dr. Daniela Dimitrova-Radojichikj, Institute of Special Education and Rehabilitation, Faculty of Philosophy, University "Ss Cyril and Methodius", Skopje, Macedonia
- Dr. Natasha Chichevska Jovanova, Institute of Special Education and Rehabilitation, Faculty of Philosophy, University "Ss Cyril and Methodius", Skopje, Macedonia

- Dr. Sašo Kožuharov, University of Tourism and Management, Skopje, Macedonia
- Dr. Kristijan Džambazovski, UGD Štip, Macedonia
- Dr. Mitrička Stardelova, Head of the Institute for Anthropological Kinesiology, University of St. Cyril and Methodius, Macedonia
- Dr. Frank IBIKUNLE, Covenant University, Dept. of Electrical & Information Engineering, Km 10, Idiroko Road, Ota, Nigeria
- Dr. Gufran Ahmad Ansari, Department of Information Technology, College of Computer, Qassim University, Al-Qassim, Kingdom of Saudi Arabia (KSA).
- Dr. Hemanta Kumar Baruah, Department of Statistics Gauhati University Guwahati-781014-03 Assam: India, India
- Dr. Firkhan Ali Bin Hamid Ali, Fakulti Sains Komputer dan Teknologi Maklumat, Malaysia
- Dr. Mohammed Karim, Faculty of Sciences Dhar El Mehraz University Sidi Mohamed Ben Abdellah FEZ, Morocco
- Dr. Omaima Nazar Ahmad Al-Allaf, CIS Department, Faculty of Sciences and Information Technology, AL-Zaytoonah University of Jordan, Amman 11733, P.O Box: 130, Alyaa Queen Airport Street, Jordan
- Dr. Tsonkova Dimitrinka Georgieva, St. Cyril and St. Methodius University of Veliko Trnovo, Bulgaria - Faculty of Education, Department Theory and Methods of Teaching Physical Education, Bulgaria

Copy editor

- MSc. Igor Petrović, College for Preschool Teachers, Aleksinac, Serbia

Layout editor

- B.Sc. Kokan Jankovic, B.Sc. in Electrical Engineering, profile: computer science and IT, Faculty of Electronic Engineering, Nish, Serbia
- Ranko Lazeski, Apsolvent at Faculty of Computer Science at SEE University, Macedonia

Proof editor

- Dr. Lazar Stošić, Editor in Chief International Journal of Cognitive Research in science, engineering and education (IJCRSEE), Serbia
- Dr. Alla Belousova, Chair of Psychology of Education Faculty of Pedagogy and Practical Psychology Southern Federal University, Russian Federation
- Dr. Aneta Barakoska, Faculty of Philosophy, University St. Cyril and Methodius, Macedonia
- MSc Sonja Veličković, College of professional studies educators, Aleksinac, Serbia



INTERNATIONAL JOURNAL OF COGNITIVE RESEARCH IN SCIENCE, ENGINEERING AND EDUCATION (IJCRSEE)

INDEXED:

INDEX COPERNICUS

IC Journals Master List 2012 - ICV 2012: 5.31



IJCRSEE will be indexed by more academic databases in the future.

TABLE OF CONTENTS

| | |
|--|-------|
| <u>STUDENTS' OPINION ABOUT PROFESSIONAL ETHICS RELATION OF THE TEACHERS</u> | |
| <i>Dr. Vera Stojanovska</i> | 1-5 |
| <u>VIOLENCE AGAINST TEACHERS- RULE OR EXCEPTION?</u> | |
| <i>Maja Lokmić, MD , Dr. Siniša Opić, Dr. Vesna Bilić</i> | 6-15 |
| <u>STUDY OF SPORTS TEACHERS STUDENTS' SKILLS FOR SELF-ASSESSMENT OF THEIR PROFESSIONAL QUALITIES</u> | |
| <i>Dr. Dimitrinka Georgieva Tsonkova</i> | 16-20 |
| <u>TEACHING AND LEARNING OF ECOLOGY FOR THE STUDENTS OF VOCATIONAL SECONDARY SCHOOLS IN MULTIMEDIA ENVIRONMENT</u> | |
| <i>Dr. Vladimir Matić</i> | 21-32 |
| <u>ACCURACY IN FOOTBALL: SCORING A GOAL AS THE ULTIMATE OBJECTIVE OF FOOTBALL GAME</u> | |
| <i>Dr. Dejan Milenković, Dr. Igor Stanojević</i> | 33-37 |
| <u>IMPLEMENTATION OF THE RESTITUTION IN THE CONTEMPORARY TEACHING PRACTICE IN THE REPUBLIC OF MACEDONIA</u> | |
| <i>Dr. Svetlana Pandiloska Grncharovska, Dr. Gordana Stankovska, Dr.Fadbi Osmani..</i> | 38-44 |
| <u>INTERCONNECTION AND INTERACTION OF INTERROGATIVE SENTENCES IN THE ENGLISH LANGUAGE</u> | |
| <i>Dr. Sklyarova Natalia</i> | 45-50 |
| <u>INTERCULTURAL EDUCATION: ANALYSIS OF THE PRIMARY SCHOOL TEXT-BOOKS IN THE REPUBLIC OF MACEDONIA</u> | |
| <i>Dr. Elena Achkovska Leshkovska, Dr. Vladimir Davchev</i> | 51-56 |
| <u>PARAMETRICAL WORDS IN THE SENTIMENT LEXICON</u> | |
| <i>Dr. Elena G. Brunova</i> | 57-64 |
| <u>FORMS OF MOVEMENT IN TERMS OF ELEMENTARY GAMES AT PHYSICAL EDUCATION CLASSES</u> | |
| <i>Dr. Igor Stanojević, Dr. Dejan Milenković</i> | 65-70 |
| <u>VALUE-SEMANTIC SCOPE OF PERSONAL SPACE OF UNIVERSITY STUDENTS</u> | |
| <i>Dr. Natalia N. Mozgovaya, Dr. E.A. Suroedova</i> | 71-77 |
| <u>LINGUISTIC MANIPULATION: DEFINITION AND TYPES</u> | |
| <i>Dr. Akopova Asya</i> | 78-82 |

PEDAGOGICAL AND PSYHOLOGICAL BASIS OF MORAL EDUCATION

Dr. Aneta Barakoska, MSc Aneta Jovkovska 83-93

PRACTICAL STRATEGIES FOR ENHANCING INTERDISCIPLINARY COLLABORATION IN NEUROEDUCATIONAL STUDIES

Dr. Ali Nouri 94-100

CENSORSHIP AS A MEANS OF PRESERVING NATIONAL IDENTITY

Dr. Agapova Elena 101-105

INNOVATION RESEARCH OF MORAL EDUCATION BASED ON EXCELLENCE ENGINEER TRAINING PROGRAM

Dr. Li Hong-Mei, MSc. Han Dan 106-113

M-LEARNING - A NEW FORM OF LEARNING AND EDUCATION

Dr. Lazar Stošić, Dr. Milena Bogdanović 114-118

THE ROLE AND IMPORTANCE OF THE INTERNET IN CONTEMPORARY TOURISM IN TRAVEL AGENCIES BUSINESS

MSc. Ivica Batinić 119-122

EXPLORATION AND PRACTICE OF SCHOOL-ENTERPRISE COOPERATION IN PRACTICAL EDUCATION BASED ON "OUTSTANDING PROJECT"

Dr. Li Hong-Mei, Dr. Han Dan, Dr. Feng Zi-Ming, MSc Li Qiang 123-128

PSYCHOLOGICAL ASPECTS OF GIFTED CHILDREN

Dr. Stankovska Gordana, Dr. Svetlana Pandilovska, MA Aleksandra Taneska, MA Sara Miftari Sadiku 129-134

PROBLEMS DISCONTINUITY ON THE FIRST LEVEL OF THE SCHOOL SYSTEM

MSc Sonja Veličković 135-143

COMMUNICATIVE EFFECT ACHIEVED THROUGH SPEECH ACTS OF MANIPULATION

Dr. Grischechko Oksana 144-151

PEDAGOGICAL PRACTICE WAY OF CONNECTING PEDAGOGICAL THEORY AND PRACTICE

MSc Božo P. Obradović 152-163

PREPARING STUDENTS FOR THE TREATMENT OF A NEW TEACHER CONTENT, AN IMPORTANT PREREQUISITE FOR THE SUCCESSFUL IMPLEMENTATION OF THE TASK OF TEACHING

Dr. Zvezdan Arsić 164-172

EXTENSION OF THE FUZZY C MEANS CLUSTERING ALGORITHM TO FIT WITH
THE COMPOSITE GRAPH MODEL FOR WEB DOCUMENT REPRESENTATION

Mr. Kaushik K. Phukon MCA, Prof. Hemanta K. Baruah..... 173-179

AUTHOR GUIDELINES..... 180-183

PARTNERS AND SPONSORS..... 184-191

STUDENTS' OPINION ABOUT PROFESSIONAL ETHICS RELATION OF THE TEACHERS

Dr. Vera Stojanovska, Institute of Pedagogy, Faculty of Philosophy, Skopje, R. Macedonia
E-mail: veras@fzf.ukim.edu.mk

Abstract: Professional teacher's ethics is a collection of moral codes of their professional work. It is significant that the teaching profession respects certain designated professional-ethical codes of conduct between the teachers and the students, with their colleagues and other people they professionally cooperate with.

This study is focused on analysis of the professional ethical relation of teachers towards students, seen from student's point of view. These are the results of student's reported opinion of the eighth graders from six primary schools in the region of the city of Skopje. The obtained results show that teachers mainly keep in line with the moral codes of conduct with the students, but not always all teachers respect them.

Keywords: Teacher ethics; Professional ethics; Students; Primary schools; Primary school teachers.

1. INTRODUCTION

The professional teacher's ethics is a sum of moral codes of their professional work. At the teaching profession it is important to respect few kinds of moral codes, which are basically divided into the following groups: general moral codes of the teaching profession, moral codes of conduct between teachers and students, with their colleagues, and the other subjects they professionally cooperate with.

This study is focused on the analysis of the issue about the kind of opinion students have. On how teachers keep up to certain moral codes in the communication they achieve with the students during their education. This professional ethical relation of the teachers with the students is analyzed in relation to respecting the following moral codes:

1. Implementing fair and professional teacher-student relation;
2. Motivating students to express free ideas and opinions;
3. Accepting and respecting different student's needs and requests;

4. Establishing a relation of teacher-student mutual trust and respect, paying respect to student's personality and rights;

5. Following standards of non-aggressive communication, with the students during teaching and during extra-curriculum activities;

6. Keeping to the principles against discrimination, offensive behaviour and acceptance of inhuman punishments for the students;

7. Objective evaluation of the student's achievements.

According to the many research results, it has been confirmed that keeping to the moral codes of conduct between teachers and students is a base condition in creating positive atmosphere in teaching and establishing a relation of partnership with the students. It has been stated that the degree of their respect is not only in dependence with the degree of student's accomplishments, but in the stimulation of their development as well.

2. METHOD OF RESEARCH

The empirical information about the student's feedback in relation to the professional ethical relationship of the teachers has been obtained by applying specially designed questionnaire. It contains questions by which students have the opportunity to report their opinion about teachers respecting moral codes of conduct with the students.

The sample report of the respondents comprises a total number of 137 eighth graders, one class from six primary schools in the region of the city of Skopje. The sample report includes 62 female students and 75 male students. Whereas, according to the given school progress, the number of the students in separate categories is: excellent progress students - 78, very good progress students - 33, good progress students - 23 and sufficient progress

students - 3. The questionnaire had been realized in March 2010, and in order to enable the students to be honest in giving their responses the questionnaire has been anonymous.

3. RESEARCH RESULTS

The results of the examined student's opinion about teachers keeping to the moral codes are here separately presented for each of the already given codes and according to the same order as they were previously stated. The given results are shown in a table, only for those questions that were statistically processed and where a difference in the reported opinion between the students of a different sex and between the students of a different school progress has been notified.

The moral code of practicing a fair and professional teacher-student relationship is here given according to the obtained responses to three questions. The responses of the students given to the question, *Do teachers behave in a fair and professional attitude with the students?* are given in this table.

Table 1. Categories and frequencies of responses, according to sex and school success of the students

| Category of responses | Sex | | School Results | | Total | |
|---------------------------|-------------|-----------|----------------|--------------|-------|--------|
| | Female f | Male f | Excellent f | Others* f | f | % |
| Yes, all teachers | 37 | 49 | 47 | 39 | 86 | 62,77 |
| Only the class teachers | 14 | 17 | 21 | 10 | 31 | 22,63 |
| Only the subject teachers | 7 | 4 | 2 | 9 | 11 | 8,03 |
| No, not even one teacher | 4 | 5 | 8 | 1 | 9 | 6,57 |
| Total | 62 | 75 | 78 | 59 | 137 | 100,00 |

χ^2 test = 1,67, df = 3, $P > 0,05$,
 χ^2 results = 12,15, df = 3, $P < 0,01$

The analysis of the information in the table shows that the biggest percentage of the students consider that the teachers have fair and professional relation with the students, both by the female and male students. However, the analysis also shows that there has been a significant difference in reported responses to this question by students with different school progress. The students with very good, good and sufficient school progress reported a better opinion about their teacher's code of conduct in comparison to the students with excellent school progress.

The obtained results to the question, *How do teachers behave with the students?* to

which multiple choice answers have been offered, are given in Table 2.

Table 2. Categories and frequencies of responses, according to sex and school success of the students

| Category of responses | Sex | | School Results | | Total | |
|-----------------------|-------------|-----------|----------------|-------------|-------|--------|
| | Female f | Male f | Excellent f | Others f | f | % |
| Polite | 20 | 43 | 30 | 33 | 63 | 45,98 |
| Rude | 9 | 6 | 8 | 7 | 15 | 10,95 |
| Motivating | 14 | 16 | 20 | 10 | 30 | 21,90 |
| Arrogant | 8 | 5 | 8 | 5 | 13 | 9,49 |
| Indifferent | 11 | 5 | 12 | 4 | 16 | 11,68 |
| Total | 62 | 75 | 78 | 59 | 137 | 100,00 |

χ^2 test = 10,93, df = 4, $P < 0,05$,
 χ^2 results = 5,61, df = 4, $P > 0,05$

The given results in Table 2 show that the highest percentage of the respondents considers that the teachers behave politely and motivating, whereas one third that the teachers are rude, arrogant or they are indifferent towards them. The analysis of the presented information shows that male students have better opinion about their teachers in comparison to female students. However, there is no difference in opinion between students with a different school progress.

The third question, *Are teachers arrogant and unapproachable*, 20 students or 14,60% of the total number of respondents, answered *Yes, all the teachers*, 3 students or 2,19% answered *Only the class teachers*, 27 students or 19,71% answered *Only the subject teachers*, and 87 students or 63,50% answered *No, not even one teacher*. These responses do not differ at students with a different sex or school progress. These results show that the largest number of students thinks that the teachers treat them fairly and professionally, politely and motivating and those teachers are neither arrogant nor unapproachable.

How much do teachers go in line with the moral code of motivating their students in expressing free ideas and thoughts, are given in the following responses to the question: *What is the teacher's attitude to their student's ideas?* 88 students or 64,23%, they motivate expressing free ideas, 28 or 20,44% answered, they do not pay attention to the student's ideas, and 21 students or 15,33% responded, *They do not motivate student's free idea expression*. The largest number of the respondents considers that teachers motivate students in expressing free ideas. There are no differences in the responses between the students of a different sex, and between students of different school progress.

In relation to the moral code,– paying respect to student's requests and needs, the respondents answered: 19 students or 13,87% said that *their needs are more respected by the senior teachers*, 37 students or 27,01%, said that *their needs are more respected by the younger teachers* and 81 students or 59,12% said that *their needs are respected by all teachers*. These results show that teachers accept and respect student's needs and requests.

Establishing a relation of trust and respect between the teachers and the students, paying respect to their personality and their rights, as moral codes in the teaching profession have been estimated according to the student's responses to three questions.

Responses to the question, *Do teachers encourage a relation of mutual trust and respect?* are: 51 students or 37,23% answered *Yes*, 21 students or 15,33% answered *No* and 65 students or 47,44% answered, *I do not know*. To the question, *Do teachers respect your personality?* 96 students or 70,07% answered, *Yes all the teachers*, 26 students or 18,98% answered, *Only the class teachers*, 10 students or 7,30% answered, *Only the subject teachers*, and only 5 student or 3,65% answered *No, none of the teachers*. And to the third question, *Do teachers respect your human rights?*, 104 students or 75,91% answered, *Yes all teachers*, 17 students or 12,41% answered, *Yes, only the class teachers*, 8 student or 5,84% answered, *Yes, only the subject teachers* and 8 or 5,84% student answered *No, none of the teachers*. These results show that teachers mainly respect student's rights and their personality, but that in their teaching they have not encouraged the significant moral code in this profession - nourishing a mutual trust with the students, enough. The analysis of the given answers to three questions shows that there is no difference between the reported opinion between students of a different sex and of a different school progress.

Whereas, the question about the moral code, if teachers respect the principles of non-aggressive communication in their relation with the students, was answered as following: 61 students or 44,53% answered that *teachers always respect those moral codes*, 61 students or 44,53% answered that *teachers occasionally respect those codes* and 15 students or 10,94% reported that *moral codes are never respected by the teachers*.

As far as keeping to the moral codes against discrimination and against insulting students and against applying unfair, unauthorized punishment for the students, very interesting responses have been reported. At the question, *What is that you do not like about your teacher's attitude towards you?*, the following original responses have been reported:

- Some teachers are more polite towards some students. Even though I am an excellent student I do not like the discrimination because of the student's school progress;
- Some teachers show higher tolerance and permissive attitude to the girls;
- Teachers get soften towards student's parents they know well and who are well off;
- If we have not learned well they use bad language;
- They are not fair to all students and that is insulting;
- Some teachers insult and threaten;
- Because I have a bad school progress, teachers address me with bad offensive words – dope, illiterate, etc. student.

The given responses to the question, *Do teachers apply corporal punishments and other punishment activities by which they humiliate and intimidate their students?* are stated in the table:

Table 3. Categories and frequencies of responses, according to sex and school success of the students

| Categories of responses | Sex | | School Results | | Total | |
|---|-------------|-----------|----------------|-------------|-------|--------|
| | Female f | Male f | Excellent f | Others f | f | % |
| Yes they do it on an almost daily basis | 3 | 1 | 1 | 3 | 4 | 2,92 |
| Sometimes | 22 | 24 | 20 | 26 | 46 | 33,58 |
| No, they never do that | 37 | 50 | 57 | 30 | 87 | 63,50 |
| Total | 62 | 75 | 78 | 59 | 137 | 100,00 |

$$\chi^2 \text{ test} = 1,81, df = 2, P > 0,05$$

$$\chi^2 \text{ progress} = 7,68, df = 2, P < 0,05$$

The information here shows that almost two thirds of the respondents say that teachers never apply corporal or other punishment by which they are humiliated and intimidated, and one third says that only sometimes teachers do that. We have found a difference in the reported responses between the students of a different school progress, but not at students of a different sex. In comparison with the excellent progress students, the others consider that teachers apply punishments. Whether teachers are fair when applying a punishment, students reported the following: *they are always fair-*

36 or 26,28% , *they are only sometimes fair* – 81 students or 59,12% and *they are unfair* – 20 students or 14.60%. There is no difference here at the students of a different sex or school progress.

The reported answers to the question *How often do teachers use bad words and embarrass students with bad language?* are shown in the following table.

Table 4. Categories and frequencies of responses, according to the sex and school success of the students

| Category of responses | Sex | | School Results | | Total | |
|---|-------------|-----------|----------------|-------------|-------|--------|
| | Female f | Male f | Excellent f | Others f | f | % |
| Yes they do it on an almost daily basis | 11 | 4 | 10 | 5 | 15 | 10,95 |
| Sometimes | 37 | 45 | 47 | 35 | 82 | 59,85 |
| No, they never do that | 14 | 26 | 21 | 19 | 40 | 29,20 |
| Total | 62 | 75 | 78 | 59 | 137 | 100,00 |

$$\chi^2 \text{ test} = 6,47, df = 2, P < 0,05$$

$$\chi^2 \text{ progress} = 0,90, df = 2, P > 0,05$$

The stated responses show that less than one third of the respondents have answered that teachers do not insult them and do not humiliate them with offensive words, whereas others say that sometimes or on a daily basis teachers do that. This answer differ according to the students of a different sex, but not between students of a different school progress. Compared to the male students, significantly larger percentage of the female students reported that teachers do that more often.

These research results show that not always and not all teachers respect the moral codes against discrimination, against using offensive language to the students, and against applying inhuman punishment in communication with the students.

The objective evaluation of student's achievements by the teachers are a moral code whose disrespect always causes negative feelings at the students. In relation to keeping to this code by the teachers, the question, *Are teachers objective when giving marks?*, has been responded as following: 49 students or 35,77% answered *Yes*, 37 or 27,01% answered *No* and 51 students or 37,22% answered *I do not know*. At the question *What is that you do not like about your teacher's attitude towards you?* the following responses have often been given:

- Sometimes teachers give unreal marks;
- They do not let us improve our grades;
- Some teachers do not mark objectively;

- They grade us without examination;
- They are very strict when grading;
- They do not give objective marks to students they do not like, no matter how well they have learned;
- They sometimes give unfairly low grades;
- They do not grade fairly because they are influenced by the other teacher's marks.

4. CONCLUSION

What can actually be drawn as a general conclusion, based on the reported results obtained in this research? First, they show that primary schoolteachers mainly keep to the moral codes of conduct in relation to the students. This conclusion is based on the fact that the largest number of the respondents consider that teachers have fair and professional attitude that they pay respect to students needs and requests, that they motivate free idea expression and opinion, that they respect their rights and opinion, that they respect their rights, their personality and dignity, as well as the principles of non-aggressive communication with students. The results also show that not always and not all teachers keep to the moral codes of conduct with the students. One third of the respondents have reported their opinion of the total number of respondents. Their reactions are that teachers sometimes treat them rudely and arrogantly, that the teachers do not motivate and do not pay attention to student's ideas, that they are more tolerant and subjective towards female students, that they do not grade them objectively and that some teachers insult them using bad language and threaten them.

The expressed attitude and opinion about not respecting moral codes of teacher's conduct that have been reported at one third of the respondents, point out that this problem is present and that the educational institutions should treat it with more concern. Despite the fact that the moral codes of conduct of the teachers are regulated by certain laws and by-laws, still, it is necessary that this issue is treated more precisely by a special ethical code for the teaching profession. That way all moral standards of this profession would become accessible and beneficial for the teachers, the students and their parents.

REFERENCE

- Babić – Avdispahić, J. (2005). Nastavništvo kao vokacija: Etički izazov. *Prilozi za pedagogiku – andragogiku praksu na Univerzitetu*. Sarajevo: DES
- Barry, B. (1990). The Limits of Teacher Professionalism. In *The Moral Dimensions of Teaching*, ed. John Goodlad, Roger Soder, and Kenneth Sirotnik. San Francisco: Jossey-Bass.
- Beyer, L. (1997). The moral contours of teacher education. *Journal of Teacher Education*, 48, 4, pp. 245-254.
- Blaževska, O. (2000). *Delovna etika*. Skopje: Ekonomski fakultet
- Callan, E. (1997). *Creating Citizens: Political Education and Liberal Democracy*. Oxford: Oxford University Press.
- Colnerud, G. (2006). Teacher ethics as a research problem: syntheses achieved and new issues. *Teachers and Teaching: theory and practice*, 12, 3, pp. 365-385.
- Mandić, P., Radovanović, I., Mandić, D. (2000). *Uvod u opštu i informatičku pedagogiju*. Beograd: Učiteljski fakultet
- Noddings, N. (1984). *Caring: A Feminine Approach to Ethics and Moral Education*. Berkeley: University of California Press.
- Oser, F. K. (1994). Moral Perspectives on Teaching. *Review of Educational Research*, 20, pp. 57-121.
- Petkovski, K. (2000). *Vodstvo i efektivna komunikacija*. Bitola: Kiro Dandaro
- Petkovski, K., Jankulovska, P. (2006). *Delovno komunicirawe*. Bitola: IRIS-R
- Rowan, J., Zinaich, S. (eds) (2003). *Ethics for the Professions*. Wadsworth, Thomson Learning
- Sockett, H. (1993). *The Moral Base for Teacher Professionalism*. New York: Teachers College Press.
- Strike, Kenneth A. (1988). The Ethics of Resource Allocation. In *Microlevel School Finance*, ed. David H. Monk and Julie Underwood. Cambridge, MA: Ballinger.
- Strike, Kenneth A. (1990). The Legal and Moral Responsibilities of Teachers. In *The Moral Dimensions of Teaching*, ed. John Goodlad, Roger Soder, and Kenneth Sirotnic. San Francisco: Jossey-Bass.
- Strike, Kenneth A., and Soltis, Jonas F. (1998). *The Ethics of Teaching*, 3rd edition. New York: Teachers College Press.
- Temkov, K. (2000). *Etika*. Skopje: Filozofski fakultet
- Temkov, K. (2011). *Profesionalna etika*. Kavadarci: Dom na kulturata "Ivan Mazov - Klime"
- Trnavac, N., Đorđević, J. (2002). *Pedagogija*. Beograd: Naučna knjiga

VIOLENCE AGAINST TEACHERS- RULE OR EXCEPTION?

Maja Lokmić, MD student, Faculty of Teacher Education, University of Zagreb

E-mail: maja.lokmic@gmail.com

Dr. Siniša Opić, Faculty of Teacher Education, University of Zagreb

E-mail: sinisa.opic@ufzg.hr

Dr. Vesna Bilić, Faculty of Teacher Education, University of Zagreb

E-mail: vesna.bilic@ufzg.hr

Abstract: The objective of this study is to examine the prevalence of violence against teachers by students. The study included 175 teachers, five primary and five secondary schools. The age of respondents (teachers) ranges from 20 to 65, with average age being 44,33 years. The used instrument has assessed violence against teachers and has consisted of data about the characteristics of respondents, frequency and type of violence experienced from students.

The results suggest that violence against teachers in primary and secondary schools in Zagreb taken in to sample is very much present. Since 74,3% teachers has experienced violence from their students during the year that kind of behavior is more of a rule than an exception. Students in primary and secondary schools show violent behavior against their teachers at an equal level. Male teachers, as opposed to female teachers, are more frequently victims of violent behavior (posting inappropriate content online) from their students. Also, there is a statistically significant correlation (negative) between age (years of service in school) and frequency of experienced violence from students.

Keywords: violence, teachers, schools, students, parents, violent behaviour.

INTRODUCTION

When talking about violence that is present in school environment, what occurs most often is violence among students, rarer that teachers sometimes inappropriately use force, but what is rather neglected is the fact that teachers themselves are increasingly subjected to harassment by their students. Violence is defined as any form of physical and/or emotional abuse, and also unfair treatment of people, which results in real or potential danger for their health and dignity, i.e. harming their reputation (according to WHO - World Health Organization, 2006; Bilić et al., 2012).

In their schools, teachers are most often exposed to traditional forms of violence, i.e. physical, verbal and social. Physical violence is defined as deliberate, repeated or one-time rough infliction of pain and/ or body injuries by another person that involves potential risk of physical harm and consequences of which may or may not be visible (WHO, 2006; Bilić et al., 2012). Verbal violence is the most common form and it is defined as deliberate use of inappropriate and harsh words to hurt another person. Students use it, as well as parents sometimes, too, and it is directed to teachers in order to express their discontent. It involves demoralization of the victim, name-calling, insults, ridicule, humiliation, contemplation, and disregard of results. Social (relational) violence includes saying untruths about the victim in order to humiliate and undermine his/her dignity. It is expressed by ignoring, avoiding, gossiping, refusing collaboration, and sabotaging teacher's work (Kauppi, Pöröhölä, 2012). Social violence can be expressed directly or indirectly. Thanks to the advance of modern technology, electronic violence is becoming more present and is defined as intentional infliction of pain and injury, in order to damage the reputation, status and dignity of the victim, i.e. the teacher, by using electronic devices and their modalities, especially mobile phones, Internet and increasingly popular social networks. What especially contribute this form of violence is anonymity and the feeling that the perpetrator would not be revealed. Violent activities can happen at any time and from any electronic device, so it is justified to discuss continuous violence from an unknown location, which is seen as „pervasive“. The

victim is always available to the perpetrators and there are minimal chances for them to defend themselves from inappropriate content, as well as for the perpetrator to be discovered. This information is spread easily and at uncontrolled speed, they are available to a large number of people and remain long recorded on websites, which makes this form of electronic violence very harmful (Bilić, 2007). Steffen et al. (2007) believe that lack of empathy is a risk factor for electronic bullying. A lack of direct contact with the victim in virtual world is a possible reason for greater cruelty, as the suffering of the victim does not appear obvious.

Distribution and perpetrator of violence against teachers

Although rare, studies on violence against teachers show that this kind of violence is not uncommon. Thus, in a study conducted in 48 federal states of America (ATPATF-The American Psychological Association Task Force, 2011), has shown that 80% of teachers had reported violence, of which 94% have experienced insults from their students, 44% in a combination with a physical attack, and 50% theft or property damage (APA 2011; Espelage et al., 2013). In a study conducted in Turkey (Mehmet, OS, 2012), it was found that teachers often experience emotional violence (24,1%), verbal (14,7%) and physical (6,3%). A report released by SEED - Scottish Executive Education Department (2004) shows that teachers in Scotland have reported 6.899 acts by students, which had happened inside and outside school during the academic year 2002/2003. Out of that number, 25% is verbal, 45% is physical, 29% is multiple, verbal and physical violence and 0,8% is property damage. A study conducted in Slovakia (Dzuka, Dalbert, 2007), which included 364 teachers, has shown that teachers have experienced violence from students in the period of last thirty days. The results are: verbal violence 35,4%,

personal property damage 12,4% and physical violence 4,9%. Thus, 49% of surveyed teachers have had negative experiences.

In a study conducted by Kauppi, Pöröhölä (2012) in Finland, it can be seen that 25,6% of teachers has experienced violence, out of which 3,3% experience it every week, 3,7% almost every day and 67,4% have almost never experienced violence from students.

We can conclude that violence against teachers is present in countries of different cultures around the world, though not equally frequent. As the previously stated results suggest, the most common type of violence from students is verbal. Although the results show that physical violence against teachers is rarer, they are unfortunately, not spared from that expression of it.

If we compare results from similar surveys conducted in our neighboring countries: in Slovenia, 17,9% of teachers have experienced physical violence from their students, while 31,3% experienced verbal violence.

In Serbia, Popadić and Plut (2006) have conducted a study on violence against teachers in primary schools and found that, according to students' opinion (N=26 628), 42% of teachers have experienced violence: 3,8% often, 9,6% more times and 28,6% once or twice in a period of three months. Physical violence was experienced by 0,6% of teachers frequently, 1,1% more times, 6,6% once or twice. Thus, according to the studies carried out in our region, it is evident that in our schools violence is predominantly verbal, while physical is less present.

In Croatia, (Russo, A., Milić, R., Knežević, B., & Mulić, R., 2008) have conducted research in Split that included teachers (N=764) in primary and secondary schools. It has been found that 22.4% of teachers have experienced emotional violence at least once in the past 12 months.

Violence against teachers, whether physical, verbal, emotional, direct or indirect, leaves a deep mark on self-confidence

and self-esteem of teachers, so it can be assumed that it hinders their work and affects their job satisfaction and performance, makes it difficult to create a healthy atmosphere in the classroom, and all this combined has an impact on final development and success of students.

Perpetrators of violence against teachers are students and their parents, and colleagues as well, which is not uncommon. Limited number of studies dealing with this phenomenon have shown that teachers are still often victims of their students and their parents. That study (Evans Johnson, 2008) was conducted in Atlanta (N=117) and it shows that 57,2% secondary school teachers had experienced verbal violence by parents. Physical violence had been experienced by 2,5% of teachers once, 0,9% had experienced it twice, while property damage was experienced by 4,2% of teachers.

From the research carried out by Reddy (Espelage et al., 2013), in the United States, it can be found that 37% of teachers had been exposed to violent incidents by parents and 21% by their colleagues. Results have shown that while growing up, verbal aggression among peers in primary and secondary school grows proportionately and that girls, on average, are more prosocially oriented than boys, thus, when in conflict, they use not use different patterns of verbal aggression as much as boys do, except when it comes to bickering/squabbling and shouting (Milašin, Vranić Buljubašić, Kuzmanović, 2009).

The above-mentioned results prompted us to examine prevalence and types of violence against teachers in primary and secondary schools in Zagreb and determine the frequency of such experience. In addition, after conducting a survey, we have obtained answers to questions concerning the structure of manifested inappropriate behavior with regard to gender of students, age and work experience of teachers and the use of indirect forms of harassment through electronic interfaces.

Reasons for the emergence of violence against teachers

It seems that teachers are often „unprotected victims of school violence“ (Bilić, 2007), due to a lack of education in the family, children's non-recognition of any kind of authority and a very strong influence of peers and the media from which, as a result of a lack of control, they receive age-inappropriate that they reproduce through their behavior. A very strong reason for the emergence of violent behavior may be stress that occurs because of environmental influences, mostly because of the situation at school.

The references state a number of possible causes of students' violent behavior against their teachers (Bilić, 2007; Espelage et al., 2013). The most common causes are: „supporting violent methods on all levels even if we declaratively stand against them (for example, those who got rich in unlawful ways, taking what does not belong to them and who achieve their goals in an aggressive way are considered successful); neglecting moral values and moral education in general, especially when it comes to respect that is considered old-fashioned; violent acts usually remain unpunished; bullies and abusers are most often heroes of many TV shows, movies, video and computer games, as well as our neighborhoods“ (Bilić, 2007, p.63).

In the background of these students' actions stands behavior learned in family. Some of the factors that encourage violent behavior can be: dysfunctional families that do not develop child's empathy, due to a lack of commitment of family members a sense of inferiority and resentment can occur, so the child wants to stand out and dominate outside it. A family needs to raise children, convey to them the correct moral views that they will apply in their later life. In case it does not, children become self-centered, do not accept anyone's authority, expect that everything adapt to them and behave violently in order to achieve their intentions. Possible rea-

sons are indulgent parents who do not set boundaries for their children's behavior and tolerate violent behavior or parents who themselves are abusers. Additionally, messages that parents transmit to their children, such as: "...if you come across something you do not like, the easiest way is to accuse someone who caused such feelings, or if a teacher does not give you or disregards your suggestion, we will simply complain about it (to director, inspection)" (Bilić, 2007, p.48).

One of the reasons is that children and their parents have understood children's rights over-simplified: children have all rights, but they do not have any responsibilities. Instead of talking about children's problems and cooperating with teachers, to any complaint or warning that does not favor them or every grade they are not satisfied with, they threaten with lawsuits to abuse (Bilić, 2008, p.47).

Another factor that has a major impact on students aggressiveness against teachers, as stated by many authors (Bushman, Huesmann, 2001; Kunczik, Zipfel, 2007), is the influence of media.

Media can be useful for studying and learning if the content is appropriate, but not if they are full of violence. We can extract short-term and long-term negative effects of media. A research has shown that children who had watched a violent movie during a game, acted more aggressive in mutual interaction. Children who are frequently exposed to violent content on television act more aggressively, as well as those who grew up watching violence on television have tendencies to more frequent violent behavior in later childhood and adolescence (Paik, Comstock, 2004; Bushman, Huesmann, 2001). Parents are certainly the most responsible for controlling media content which children are exposed to. Lack of control and careful selection of content available to children through television, internet and magazines, can lead to misreading what has been seen. Children can get the impression that what they see is acceptable behavior and copy

such behavior into every day situation. Parents are the ones who should develop children's sense of good and bad actions.

School situation is very often, due to stress that develops in students, considered the third reason for violent behavior. Stress can be caused by teachers, classmates, and parents. Children are used to being important to their parents, having all the attention and they expect that they are treated the same way in school. A problem can arise when they do have not experience that in the same degree and then seek to stand out, attract attention, which, depending on temperament, can be violent. Teachers can also encourage violence with their actions. A series of poor grades and constant criticism directed toward the same student can hurt him, make him feel like he is not loved the same way as others that he is considered less valuable and then can respond with violent behavior. Teachers who use their authority to develop relationships with their students that encourage respecting given rules and the one who determines them, will have fewer problems with violence than teachers who are too indulgent and who have not clearly defined what is tolerable, and what is not. Classmates are often divided into groups in which an individual stands out as a leader who determines the behavior of the whole group. A leader who acts violently against a teacher will gather around a small group of students with similar characteristics, who will encourage each other in eliciting a teacher, disrupting classes, and ignoring the teacher's authority. Individuals in that group might not usually be violent, but they care about being accepted by their peers, perhaps to avoid their taunts, so they try to fit in by being violent to teachers.

Theoretical explanations for students' violent actions

In order to find out why students become aggressive, we need to consider some theories about the cause of such behavior. There are four groups of factors

that influence development of violent behavior in children: interpersonal (biological, psychological and genetic), family and other close connections, school and community, culture and media (Velki, 2012).

When children break the rules, they assess themselves as being a bad person, feel powerless, and sometimes these feelings can turn into irritability and anger, blaming others and being aggressive (blame externalization), so they again feel like they have the situation under control (Bilić, 2012).

It is well known that children learn by imitating adults, as well as through what they are surrounded with, their peers and the world of different media that we cannot leave out. There is no single definition of aggression, but many authors have tried to explain it: "In general, behavior is considered aggressive if it is carried out with intent to cause someone or something some sort of damage." (Cole, Dodge, 1997; Keresteš, 2005, p.243). It is an uncompromising imposition of our own ideas and attitudes as single and corrects (Essau, Conradt, 2006). Theories mentioned in the 20th century describe aggression as a reaction to a situation. F- A theory is based on a statement that aggression always occurs as a response to a situation of frustration that always leads to aggression (Milašin, Vranić, Buljubašić Kuzmanović, 2009). Skinner's operant conditioning theory (1953, Essau, Conradt, 2006) argues that some forms of (aggressive) behavior are being rewarded. If a student performs verbal aggression against a teacher, he turns out to be a "hotshot" in front of his classmates, which guarantees him a high status in the group. Lorenz's ethological theory (1966, Essau, Conradt, 2006) argues that aggressiveness is innate. Certainly, there are two types of aggressiveness called the pursuit of elevation that helps in overcoming difficulties and acquiring knowledge, and malignant, which we focus on in this work as a source of violent behavior, i.e. a destructive tendency that occurs under the influence of social situations.

When talking about Pavlov's theory of classical conditioning (1972, Essau, Conradt, 2006), aggressive behavior occurs if a stimulus that causes aggressive reaction occurs simultaneously with a neutral environmental stimulus, and the aggressive reaction can be tied to it (Essau, Conradt, 2006, p.130). For example, if a child likes going to school, but does not manage to get good grades and is constantly warned that it needs to improve, it may blame and develop an aversion toward the teacher. The student then might develop negative emotions, think that the teacher does not like them and start reacting aggressively. One of the most famous theories of social learning is learning by observation by Albert Bandura (1989, Essau, Conradt, 2006). It argues that aggressive reactions can be learned from a model (a parent) and environment (peers, media) by observing and remembering those kinds of behavior and reactions in certain situations in order to know how to use them when needed.

How teachers perceive violence?

Experiencing unpleasant situations in a work place cannot be productive, nor supportive, especially if it includes violence.

Teachers can affect students' reactions with their approach and way of working. Good preparation, interesting content presentation and good communication with students, with specifically given boundaries of acceptable behavior, together with the teacher being an example through creating a pleasant working atmosphere, will help in the prevention of undesirable student's behavior.

Teachers who are experiencing violence in school find it difficult to spread a positive and safe environment in their classrooms. It has a negative effect on their health. Studies on the effect of stress regarding teaching profession show that it grows with increase in students' indisci-

pline in the classroom and can lead to a burnout (McCormick, Barnett, 2001; Kauppi, Pöröhlä, 2012). Professional burnout can be described as a set of negative feelings that are a consequence of an individual's unsuccessful struggle with stress, with physical and emotional exhaustion, negative attitudes and very low productivity (Houston, 2001; Grujić, 2011). Stress is a main cause of professional burnout and it occurs when a teacher perceives his work environment and certain situation as threatening. Source of stress can vary by category, with stress being a result of: environmental behavior of students and colleagues, physical and technical conditions of work, occupational roles, poor interpersonal relationships, and atmosphere that students and colleagues bring into school (McGrath, 1976; Friščić, 2006). As a result, teacher's concentration and motivation decrease, which is very important for high quality of work- teaching students. "In teachers who use strategies focused on emotions while dealing with stress, a sense of insecurity, anxiety, depression, and a feeling that they are not able to accept the stress is going to be more powerful. In addition, they will often express psychological symptoms such as physical exhaustion, weakness, rapid fatigue, and trouble concentrating on work (Grgin et al., 1995; Brkić, Rijavec, 2011, p.221).

Teachers who use confrontation focused on emotions, deny facts and their consequences, refuse to accept the worst-the truth and act as if what happened is not important (Lazarus, Folkman, 2004; Brkić, Rijavec 2011). Sometimes a long-term exposure to stress and job dissatisfaction can result in leaving the teaching profession. A research (Otero Lopez, Santiago, Gódas et al., 2008) conducted in Spain proves that students' jamming behavior, their indiscipline and lack of cooperation is positively associated with exhaustion and dissatisfaction. Kokkinos (2007) has also confirmed in his research that students' indiscipline is

a significant factor in creating professional burnout.

However, research has shown that a level of burnout of teachers is low and very low (Koludrović, Jukić, Reić Ercegovac, 2009). A study (Dzuka, Dalbert, 2007) shows that students' violent behavior is often a reason for teachers' stress.

Regardless of whether it is mild, moderate or severe, bullying is not normal. It is associative, and it should be approached to as such. We have to find the cause of perpetrators' violent behavior and stop the chain of abuse. "What we need to find is a social solution to antisocial behavior." (Coloroso, 2004).

EMPIRICAL PART

This study aims to raise awareness that there is not only a problem of peer violence in schools, but also a problem of violence against teachers in primary and secondary schools. It is very important to show the current situation in schools because so far not many studies have been conducted regarding this issue.

Besides determining the prevalence of violence against teachers, and by their students, the study implies the following hypotheses:

H1: Teachers in secondary schools are more often exposed to violent behavior from their students than teachers in primary schools

H2: Teachers are more often victims of violent behavior (posting inappropriate content online) by their students than their female colleagues are.

H3: There is a statistically significant correlation between age (years of service in school) and frequency of violence

The sample

The survey was conducted during April 2013 in five primary and five secondary schools in Zagreb (Republic of

Croatia). They survey included 175 teachers, 88 of them from primary and 81 from secondary schools. In primary schools, 41 teachers teach grades 1-4 and 47 teach grades 5-8. Average age of all the respondents was 44,33 and its range was 20-65 years.

INSTRUMENTS

For the purposes of this research, a questionnaire with 23 particles was made. The first part was referring to socio-demographic variables: gender, age, qualifications, work experience, and workplace. Particles in the second part were referring to frequency, type of violence, reasons, location, elicited reactions, subsequently applied measures, their effectiveness, and parents' attitude towards teachers. Particles on prevalence of violence were measured on a five-degree scale of ordinal type, negatively polarized with quantified characteristics- 1: never, 2- seldom, 3- sometimes, 4- often, 5- always.

RESULTS AND DISCUSSION

Results on prevalence of violence that teachers experienced from their students were analyzed. The asked question was: "How often have experience violent behavior from your students?", and the answers offered were: once a day, once a week, once a month, once a year or never (Table 1).

Table 1. Frequency of experienced violence

| % frequency of violence experienced from students | | | | |
|---|-----------------|------------------|-----------------|-----------|
| (1) once a day | (2) once a week | (3) once a month | (4) once a year | (5) never |
| 9,1 | 21,3 | 15,9 | 28,0 | 25,6 |

The obtained results show that 74.3% of teachers had experienced violence during the school year, while 25,6% of them had not. Of those who had experienced violence, 28.0% experienced it once in a year, 15.9% once a month, 21, 3% once a

week and 91.% each day. As in the previously mentioned studies (Kauppi, Pöröhölä 2012; Steffen et al. 2007; Espelage, et al., 2013; Mehmet, O. S. 2012; SEED - Scottish Executive Education Department 2004; Dzuka, Dalbert 2007; Pšunder 2000; Popadić and Plut 2006; Russo et al., 2008; Evans Johnson 2008; Reddy 2012; Milašin, Vranić, Buljubašić Kuzmanović 2009; Bilić, 2007), aimed at the incidence of violence against teachers, it is evident that schools from the sample, unfortunately, do not fall behind in this negative trend. Violence against teachers, therefore, is a rule, regardless of the country, age, or gender of the teacher. There is no question whether the teachers will be exposed to it, but what will be the frequency of its occurrence.

A one - way analysis of variance (ANOVA) was used to test the difference between the sub samples (teachers in grades 1-4, teachers in grades 5-8, teachers in secondary schools) with respect to the frequency of violence experienced from students. Although the result shows that teachers in secondary schools are somewhat more exposed to violence from their students, the results of ANOVA imply that there is not statistically significant difference ($F=1,123$; $df=2$; $p=0,327$), thus rejecting the H1 hypothesis. These results actually mean that students in elementary and secondary schools act violently against their teachers equally. Regardless of the age of students, comparing the behavior of students in higher grades of elementary schools with high schools students, a lack of culture, disrespect of authority and violation of good manners, as well as violent behavior against teachers, is almost the same. Reasons for such behavior, as already stated, have their roots in the family where educational part is neglected or even completely omitted, the child does not learn to listen or obey the rules so it opposes every teacher's attempt with the only way it knows- aggression. Such behavior is emphasized with a strong negative influence of the media, watching inappropriate

content on television, Internet, movies or print, again due to a lack of parental care or authority, which leads to losing a sense of basic life values.

Olweus has proven in his study that children in the age when they start school intensify reactive, verbal and indirect strategies of violence (1994, Stefanović, Stanojević, Vidanović, Anđelković, 2009), while they abandon primitive forms and develop forms adjusted to the situation, reduce the frequency and increase the intensity of aggression (Loeber, Coie, Dodge, 1997; Stefanović, Stanojević, Vidanović, Anđelković, 2009).

Given the prevalence of the experienced violent behavior from their students, most teachers have estimated that boys mostly use verbal forms of violence (84,8%); swearing, gossiping. Comparing the results of a research conducted in Slovenia (Pšunder, 2000), we can see that verbal violence is predominant (31,3%). Physical violence (44,4%) is second when it comes to boys, and when it comes to girls: emotional (44,8%). In Slovenia, 17,9% of violence is related to a physical form.

Teachers consider that the main reasons for students' violent behavior are families influence and family conflict. "Theory of Social Learning explains aggressiveness with social conditions. Aggressiveness is being taught by indirect (imitating an aggressive model) and direct imitation (some forms of aggressive behavior are being upgraded) reinforcement (Bilić, 1999, p.70). Third reason that is considered a cause or messages from society. Children are often exposed to violent content on television, act more aggressive, as well as those who grew up watching violence on television have tendencies of more frequent violence behavior in later childhood and adolescence (Bushman, Huesmann, 2001).

With the H2 hypothesis, it has been assumed that male teachers are more often victims of violent behavior (posting inappropriate content online) by their students than their female colleagues.

From the results of Mann-Whitey U test (Mann- Whitney U=1638, Z=-3,359, p=0,001) it has been noted that teachers are more often victims of posting inappropriate content about them online than their female colleagues, which confirms the H2 hypothesis (F- Mean rank= 79,10, M-Mean rank=94,60). Possible reasons are that teachers are stricters with students during class, maintain discipline and do not allow any comments so students went at them via Internet where they comment on anything they were not allowed to in the classroom. Students avoid misconduct toward teachers in the classroom probably because of fear of punishment. Not used to discipline and with a large amount of negative energy, they deal with frustration on social networks, blogs, taking revenge on the person they consider to be guilty in a way they spread untruths about them. In doing so, they feel protected, firstly because they are far away from the teacher, there will be no immediate action no matter what they do, they hope their identity will not get discovered easily, and when and if it does get, it will be enough time to avoid punishment or it will at least be milder.

With H3 hypothesis, it has been assumed that there is a statistically significant correlation between age (years of service in school) and frequency of violence. The correlation matrix is shown in Table 2.

Table 2. Matrix correlation

| | | | Frequency of experienced violence |
|----------------|------------------|-------------------------|-----------------------------------|
| Spearman's rho | Age | Correlation Coefficient | -.226** |
| | | Sig. (2-tailed) | .004 |
| | | N | 164 |
| | Years of service | Correlation Coefficient | -.207** |
| | | Sig. (2-tailed) | .008 |
| | | N | 163 |

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2 shows that there is a statistically significant negative correlation (low) between years of work and age and the frequency of violent behavior experienced from students, which confirms the H3 hypothesis. Although the correlation is low, it indicates that with years (of service) the frequency of violence from students de-

creases. The reason might be that older teachers are more experienced in maintaining discipline and students respect them as authority. On the other hand, these teachers because of many years of work, maybe less sensitive to inappropriate behavior and do not mind it that much, which is why they have not mentioned it that much in our questionnaire.

CONCLUSION

Violence against teachers is a big problem in schools that is rarely talked about. We can learn about such situations from the media and only if there is a drastic example of abuse of teachers. In most cases, teachers are unprotected by the system and left on their own to handle these very delicate situations.

The results of this study show that 74.3% of teachers have experienced violence from their students during the school years, which determines violence against teachers more as a rule than an exception. Teachers in secondary schools are equally exposed to violent behavior from their students, as are the teachers in primary schools.

Teachers, unlike their female colleagues, are more often victims of violent behavior, regarding the fact that their students post inappropriate content about them online. It is very likely that because of their strictness in maintaining discipline in the classroom and student's fear in the presence of the teacher, students went their frustration through "communication" of the new era, meaning through posting different content, even inappropriate, on social networks and blogs.

The hypothesis that there is a statistically significant correlation between age (years of service in school) and the frequency of violence from students has been confirmed. The results have shown that with age (years of service), the frequency of experienced violent behavior decreases. Perhaps it is because older teachers are better in maintaining discipline, but it is also

possible that it is because they are less sensitive to students' provocations.

This study is an attempt of drawing attention to a common problem in the education system, which should not be neglected because neglecting it encourages its escalation. Only some of the important questions have been answered. Research on this topic should be continued and expanded and the public should be informed about this kind of violence happening not only somewhere else, which we often hear about on television, but in each of our schools, in almost every class. Additional research should include the types and manifestations of violent behavior, which would offer interesting data about the gender of violent students. Teachers, as well as parents, have a very important role in forming new generations that our future is depending on, which is why they deserve that we work on drawing attention to this problem and help in alleviating it.

REFERENCES

- Bilić, V., (1999). Agresivnost mladih i mogućnost pomoći. *Obnovljeni život*, 54, 69 – 77.
- Bilić, V. (2007). Nasilno i nekorektno postupanje prema nastavnicima u školi. U: *Vrgoč, H. (ur.) Nasilje i nasilno ponašanje u školi / vrtiću / učeničkom domu*. Zagreb: HPKZ, 46 – 66.
- Bilić, V. (2012). Značenje nekih aspekata morala i moralnog opravdavanja u razumijevanju nasilja prema vršnjacima u realnom i virtualnom svijetu. *Nova prisutnost*, 10(3), 459 – 477.
- Bilić, V., Buljan Flander, G., Hrpka, H. (2012). Nasilje nad djecom i među djecom. Jastrebarsko: *Naklada Slap*.
- Brkić, I. Rijavec, M. (2011). Izvori stresa, suočavanje sa stresom i životno zadovoljstvo učitelja razredne i predmetne nastave. *Napredak*, 152 (2), 211 – 225.
- Bushman, B. J., Huesmann, L. R. (2001). Effects of televised violence on aggression (pp. 223-254). In *D. Singer & J. Singer (Eds.), Handbook of Children and the Media*, Thousand Oaks, CA: Sage Publications.
- Coie, J. D., Dodge, K. A. (1998). Aggression and antisocial behavior. In *W. Damon & N. Eisenberg (Eds.), Handbook of child psychology: Social, emotional, and personality development*, (779-862). New York: Wiley.

- Coloroso, B. (2004). Nasilnik, žrtva, promatrač. Zagreb: Tiskara Millennium.
- Dzuka, J., Dalbert, C. (2007). Student Violence Against Teachers: Teachers' Well-Being and the Belief in a Just World. *European Psychologist*, 12, 253-260.
- Espelage, D., Anderman, E., Brown, V., Jones, A., Lane, K. L., McMahon, S. D., Reddy, L., & Reynolds, C. (2013). Understanding and preventing Violence Directed Against Teachers. *American Psychologist*, 68(2), 75 – 87.
- Essau, A. C., Conradt, J. (2006). Agresivnost u djece i mladeži. Jastrebarsko: *Naklada Slap*.
- Evans Johnson, J. (2008). *Do Parents Try To Bully Teachers Through Confrontation?*
<http://scholar.lib.vt.edu/theses/available/etd-05132008-143141/unrestricted/JackieJohnsonETD.pdf>, accepted 18.04.2013.
- Friščić, Lj. (2006). Čimbenici profesionalnog stresa i sagorijevanja u radu socijalnih radnika u Centru za socijalnu skrb Zagreb. *Ljetopis socijalnog rada*, 13(2), 347-370.
- Grgin, T., Sorić, I., Kale, I., (1995). Stres kod nastavnika i načini suočavanja sa stresom. *Radovi Filozofskog fakulteta u Zadru*, 33, 45-56.
- Grujić, Lj. (2011). Profesionalno sagorjevanje nastavnika. *Pedagogija*, 2, 215-222.
- Kauppi, T. Pörhölä, M. (2012). School teachers bullied by their students: Teachers' attributions and how they share their experiences. *Teaching and Teacher Education*, 28, 1059 – 1068.
- Keresteš, G. (2005). Mjerenje agresivnog i prosocijalnog ponašanja školske djece: usporedba procjena različitih procjenjivača. *Društvena istraživanja*, 15(1-2), 81- 82.
- Koludrović, M., Jukić, T., Reić Ercegovac, I. (2009). Sagorijevanje na poslu kod učitelja razredne i predmetne nastave te srednjoškolskih nastavnika. *Život i škola*, 22(2), 235-249.
- Kokkinos, C. M. (2007). Job stressors, personality and burnout in primary school teachers. *British Journal of Educational Psychology*, 77, 1, 229-243.
- Kunczik, M., Zipfel, A. (2007). Mediji i nasilje: aktualno stanje u znanosti. *Mendiali – znanstveni časopis za medije, masovno komuniciranje, odnose s javnostima i kulturu društva*, 1(1), 1-26.
- Lazarus, R. S., Folkman, S. (2004). Stres, procjena i suočavanje. Jastrebarsko: *Naklada Slap*.
- McCormick, J., Barnett, K. (2011). Teachers' attributions for stress and their relationships with burnout. *International Journal of Educational Management*, 25(3), 278 – 293.
- Mehmet, O. S. (2012). An investigation of violence against teachers in Turkey. *Journal of Instructional Psychology*, 39(1).
- Milašin, A., Vranić, T., Buljubašić Kuzmanović, V. (2009). Ispitivanje učestalosti verbalne agresije kod djece i mladeži. *Život i škola*, 22, 116 – 141.
- Otero López, J. M., Santiago, M., J., Godás, A., Estibaliz, V., & Ponte, D. (2008). An Integrative Approach to Burnout in Secondary School Teachers: Examining the Role of Student Disruptive Behaviour and Disciplinary Issues. *International Journal of Psychology and Psychological Therapy*, 8(2), 259-270.
- Popadić, D., Plut, D. (2007). Nasilje u osnovnim školama u Srbiji – oblici učestalosti. *Psihologija*, 40 (2), 309 – 328.
- Pšunder, M. (2000). Tudi učitelj je lahko „objekt“ nasilja. U: Rosić, V., Rafajac, B. (ur). *Nastavnik i suvremena obrazovna tehnologija*. Rijeka: Filozofski fakultet, Odsjek za pedagogiju, 183-194.
- Russo, A., Milić, R., Knežević, B., & Mulić, R. (2008). Harassment in Workplace Among School Teachers: Development of a Survey. *Croatian Medical Journal*, 49, 545-552.
- Stefanović Stanojević, T., Vidanović, S., Anđelković, V. (2010). Privrženost, agresivnost i potreba za traženjem uzbuđenja u adolescenciji. *Ljetopis socijalnog rada*, 17(1), 71-92.
- Steffgen, G., Ewen, N. (2007). Teachers as victims of school violence: The influence of strain and school culture. *International Journal on Violence and Schools*, 3, 81-93.
- Velki, T. (2012). Uloga nekih obiteljskih čimbenika u pojavi nasilja među djecom. *Psihologijske teme*, 21(1), 29 – 60.

STUDY OF SPORTS TEACHERS STUDENTS' SKILLS FOR SELF-ASSESSMENT OF THEIR PROFESSIONAL QUALITIES

Assoc. Prof. Dr. Dimitrinka Georgieva Tsonkova, "St. Cyril and St. Methodius" University of Veliko Tarnovo,
Bulgaria

E-mail: kadinova@abv.bg

Abstract: An essential characteristic of the teacher's profession is the constant process of self-improvement, which is impossible without existence of a specific personal position and criteria of the sport pedagogue. One of the trends for self-improvement is his personal and professional qualities. They are important because of their specific role – as a means of influence on the trained students in the educational process. Self-evaluation of the level of their growth is a regulator for the sport teachers conduct and activity because it determines the genuine orientation for the level of his qualities, the satisfaction or dissatisfaction.

Keyword: sports pedagogy, self-evaluation, students, professional's properties

1. INTRODUCTION

An essential characteristic of the teacher's profession is the constant process of self-improvement, which is impossible without existence of a specific personal position and criteria of the sport pedagogue. One of the trends for self-improvement is his personal and professional qualities. They are important because of their specific role – as a means of influence on the trained students in the educational process (Chesnokov, A., 2001). Self-evaluation of the level of their growth is a regulator for the sport teachers conduct and activity because it determines the genuine orientation for the level of his qualities, the satisfaction or dissatisfaction (Ross, J., 2006, St, Z., 1995).

2. MATERIALS AND METHODS

Self-evaluation is a main compound part of the self-concept of personality. De-

termining its nature, Popov, N. (1999) indicates that self-evaluation is an "act of evaluation of ourselves, our strengths and capabilities and comparing them against the facts and requirements of the environment". It has a direct impact on the self-respect and self-esteem of an individual, determines man's activity in the process of self-improvement and plays an important part in acclaiming recognition and success. The practice shows that people with a low-level of self-evaluation seek to escape failure. They are normally unsure in their abilities and deal badly with life's challenges, despite that they lack neither abilities, nor competency. People, who have a high-level of self-esteem, demonstrate a strong desire to keep and strengthen their own prestige and reputation of a competent person. Often the high-level of self-esteem is just a defence reaction, which tries to compensate the feeling of inferiority (Tsonkova, D., 2006). This is why the ability of realistic self-evaluation has an essential significance for the sports teacher students in forming their professional readiness. The formation of this ability is a long and arduous process. During adulthood, it passes off under the influence of several main factors: self-observation, self-awareness, self-comprehension, measuring oneself to other people and self - presenting.

The aim of the article is to present the results of the study of the sport pedagogy students ability to correctly and realistically evaluate their personal and professional qualities.

Purposes:

1. To determine the level of the basic personal and professional qualities of the students based on their self-evaluation.

2. To makes a comparative analysis of the results from the self-evaluation and the expert evaluation of specialists.

3. To determine the sport pedagogy students ability of self-evaluation in the structure of their readiness for professional activity.

The object of the study is the ability to self-evaluate as a part of a person's self-knowledge.

The target of the study is the ability of students - future sport teachers to realistically and objectively self-evaluate their personal and professional qualities.

2.1. Approaches and organization of the study

A wide range of complex approaches is applied; it includes an inquiry-card, self-evaluation, a group evaluation from experts, a comparative analysis, and a mathematical and statistical procession of the data.

The study was carried out during the period 2012-2013. with 120 students (72 men and 48 women) from the specialty Pedagogy of Physical Education (PPE), who studied at the University of Veliko Tarnovo "St. Cyril and St. Methodius". In the beginning of the 4th year, the students had to make a self-evaluation of 28 of their personal and professional qualities by an inquiry card, composed on their generalized empirical and theoretical experience. (St, Z., 1995, Zh, T., 2006), Ivanov, I., 2006). Along with the inquiry card there were several criteria which helped to determine the extent of the examined qualities, as it follows: 2- very low; 3 - low; 4 – moderate; 5 – high, 6 – very high. After that, the results were compared with the results of the expert group assessment, which expressed the opinion of a five-member committee with specialists in the fields of Pedagogy of Physical Education and psychology (Ivanov, I., 2006, Volkova, I. 2002).

3. RESULTS AND DISCUSSION

The comparative analyses from the results of the self-evaluation and expert assessment are done as follows: we differentiate five main groups of qualities: Intellectual, communicative, organizational, moral and professional-pedagogical. Those groups are in accordance with the main functions of the teacher in his professional activity. The inclusion of specific qualities in a particular group is conditional because the realization of the different functions suggests a complex manifestation of several personal and professional qualities of the teacher, and each has a leading role. That is why their strict differentiation is illogical and ill-established. The assignment of a given quality to a specific group is based on its advantageous significance during the realization of the respective function

In Table 1 we see the results from the comparative analysis between the self-evaluation of the students and the expert's assessment of the basic intellectual qualities, which have an advantageous significance during the realization of the cognitive function in the professional activities of sport education and sport. The average value of self-evaluation of the students-men and women, show that they have a high opinion (very good) on the following qualities: theoretical knowledge, general knowledge, language knowledge and creativity. The average value for computer literacy and innovation are lower.

Table 1. Comparative analyses of the results for the level of the intellectual activity

| | Qualities | Group | Self-evaluation | | Expert assessment | | d | t | P |
|---|-----------------------|-------|-----------------|----------------|-------------------|----------------|------|------|------|
| | | | N ₁ | S ₁ | N ₂ | S ₂ | | | |
| 1 | Theoretical schooling | m | 4,69 | 0,70 | 4,66 | 0,34 | 0,03 | 0,36 | <95% |
| | | f | 4,92 | 0,82 | 4,69 | 0,61 | 0,21 | 1,55 | <95% |
| 2 | General knowledge | m | 5,01 | 0,72 | 4,24 | 0,93 | 0,77 | 5,61 | <99% |
| | | f | 5,12 | 0,87 | 4,51 | 0,88 | 0,61 | 3,40 | <99% |
| 3 | Language knowledge | m | 4,88 | 0,89 | 3,69 | 0,90 | 1,19 | 7,93 | <99% |
| | | f | 4,96 | 0,79 | 4,27 | 0,92 | 0,69 | 3,91 | <99% |
| 4 | Computer literacy | m | 3,62 | 1,27 | 3,46 | 1,15 | 0,16 | 0,82 | <95% |
| | | f | 3,73 | 1,62 | 3,58 | 1,28 | 0,15 | 0,49 | <95% |
| 5 | Innovation | m | 3,92 | 1,26 | 3,83 | 1,27 | 0,07 | 0,33 | <95% |
| | | f | 4,48 | 0,97 | 3,96 | 0,76 | 0,84 | 2,94 | <99% |
| 6 | Creative thinking | m | 5,04 | 0,88 | 4,64 | 1,07 | 0,40 | 2,42 | <95% |
| | | f | 4,69 | 0,77 | 4,38 | 0,90 | 0,31 | 1,76 | <95% |

Note: the critical values of the t-criteria of Student with $\kappa=n_1+n_2-2=142$ u $\alpha=0,05$ equals 1,97 (men); $\kappa=n_1+n_2-2=94$ u $\alpha=0,05$ equals 1,98 (women)

Statistically important is the difference between the self-evaluation and the expert assessment of the general knowledge and the language knowledge qualities. This means that the criteria of the evaluated students for the necessary level of knowledge and good grasp of the written, and oral language as a means of communication in their professional activities is lower than that of the experts. This also applies to the evaluation of general knowledge, which includes a wider variety of topics and knowledge attitude, etc. For the qualities innovation and creative thinking, we assume that the subjects have rather evaluated their potential, which can be developed in their future teaching activities, then the realistically displayed during the teaching practices.

The second group contains the main qualities, needed by the sports teacher to successfully establish and maintain the communicative function in the educational process (Table 2). Sociability is a quality, which is the basis of the effective pedagogical interaction in the different forms of physical educational work. We have discovered that in both student groups the average value of X_1 and X_2 is high, which proves that the level of sociability is very good. In all likelihood, the intense sport activity with its specific features is having a beneficiary effect for the development of it as a personal and professional characteristic.

We can draw an identical conclusion for *mobile* category as an important professional quality in respect of the contemporary educational reality and the corresponding requirements for the teachers.

Table 2. Comparative analyses of the results for the level of communicative qualities

| Qualities | group | Self-evaluation | | Expert assessment | | d | t | Pt |
|---------------------------|-------|-----------------|-------|-------------------|-------|-------|------|------|
| | | X_1 | S_1 | X_2 | S_2 | | | |
| 1 Sociability | m | 5,06 | 1,11 | 4,94 | 1,22 | 0,12 | 0,57 | <95% |
| | f | 4,88 | 1,25 | 5,00 | 1,07 | -0,12 | 0,53 | <95% |
| 2 Quick orientation | m | 5,15 | 0,83 | 4,79 | 1,07 | 0,36 | 2,34 | >95% |
| | f | 5,19 | 0,67 | 4,77 | 0,88 | 0,42 | 2,60 | >99% |
| 3 Mobility | m | 4,90 | 0,87 | 4,74 | 0,86 | 0,16 | 1,05 | <95% |
| | f | 4,98 | 0,86 | 5,12 | 0,87 | -0,14 | 0,83 | <95% |
| 4 Accuracy | m | 4,91 | 0,74 | 4,61 | 0,97 | 0,30 | 2,11 | >95% |
| | f | 4,67 | 0,91 | 4,45 | 0,98 | 0,22 | 1,13 | <95% |
| 5 Keenness of observation | m | 4,94 | 1,12 | 4,68 | 1,36 | 0,26 | 1,27 | <95% |
| | f | 5,00 | 0,92 | 4,50 | 0,85 | 0,50 | 2,76 | >99% |
| 6 Dedication | m | 4,79 | 0,93 | 4,75 | 0,98 | 0,04 | 0,24 | <95% |
| | f | 4,90 | 0,99 | 4,85 | 1,15 | 0,05 | 0,19 | <95% |

Note: the critical values of the t-criteria of Student with $\kappa=n_1+n_2-2=142$ u $\alpha=0,05$ equals 1,97 (men); $\kappa=n_1+n_2-2=94$ u $\alpha=0,05$ equals 1,98 (women)

We suppose that the statistically large difference between X_1 and X_2 about the quick orientation is mainly since to the fact that the students have taken into account the display of this quality mainly in a worldly environment.

Generally, we may conclude that the level of this group's development is on an adequate enough levels for the professional requirements of the sports teacher and that these qualities are an important factor for the formation of professional readiness.

The analysis of the self-evaluation of the organizational qualities is quite interesting. The distinctive thing is that the evaluation of this set of qualities is that the evaluated students (man and women) have given comparatively high values, which are mainly between 4,64 to 5,31. The expert's values are lower and between the range of 4,40 to 5,06 (Table 3).

Table 3. Comparative analysis of the results for the level of organizational qualities

| Qualities | groups | Self-evaluation | | Expert assessment | | d | t | Pt |
|-------------------------|--------|-----------------|-------|-------------------|-------|-------|------|------|
| | | X_1 | S_1 | X_2 | S_2 | | | |
| 1 Taking the initiative | m | 4,88 | 0,80 | 4,99 | 0,74 | -0,11 | 0,68 | <95% |
| | f | 4,64 | 1,06 | 4,72 | 0,85 | -0,08 | 0,37 | <95% |
| 2 Purposefulness | m | 4,82 | 0,86 | 4,58 | 0,94 | 0,24 | 1,57 | <95% |
| | f | 5,02 | 0,86 | 5,06 | 1,02 | -0,04 | 0,21 | <95% |
| 3 Discipline | m | 5,12 | 0,75 | 4,59 | 0,75 | 0,53 | 4,39 | >99% |
| | f | 5,31 | 0,72 | 4,82 | 0,79 | 0,49 | 3,24 | >99% |
| 4 Strictness | m | 4,86 | 0,92 | 4,49 | 1,04 | 0,37 | 2,27 | >95% |
| | f | 5,00 | 0,82 | 4,40 | 1,05 | 0,60 | 3,14 | >99% |
| 5 Responsibility | m | 5,24 | 1,00 | 4,88 | 1,13 | 0,36 | 2,03 | >95% |
| | f | 5,19 | 1,02 | 4,79 | 1,13 | 0,40 | 1,82 | <95% |
| 6 Determination | m | 4,39 | 0,75 | 5,06 | 0,75 | -0,27 | 2,15 | >95% |
| | f | 4,75 | 1,12 | 4,66 | 0,94 | 0,29 | 0,44 | <95% |

Note: the critical values of the t-criteria of Student with $\kappa=n_1+n_2-2=142$ u $\alpha=0,05$ equals 1,97 (men); $\kappa=n_1+n_2-2=94$ u $\alpha=0,05$ equals 1,98 (women)

According to both male and female students, their most developed qualities are responsibilities and discipline. The average values are higher than the expert assessment and display a tendency to overestimate oneself, which is further proved by the statistically significant differences. This is even more highly visible in the discipline quality.

Another quality in which both male and female students have a tendency to

give overestimated values is strictness. We believe that this is no coincidence, but it is based on a proven connection between the two qualities – discipline and strictness. In this sense, we can draw the conclusion that the student's criteria about the level of personal and professional qualities are within different parameters, which do not fully coincide with the generally accepted norms. We suppose that the reason for this might be the incorrect understanding of the democratic rights of conduct and relationship.

From the results of the self-evaluation in organizational qualities, a certain peculiarity can be seen: between the male students and the experts there is an authentic difference on the values of four from the six qualities featured in this group. Between the female students and the experts however, there is a difference on only two of those qualities (discipline and strictness). That can lead us to the conclusion that the ability for a correct self-assessment is somehow dependant of the student's gender. That is why a differentiated approach is needed in the formation of the ability for a valid self-evaluation as a significant moment during the formation of the student's readiness for professional activity in physical education and sports.

The data of the moral qualities is systematized in Table 4. There are two facts that draw our attention:

✓ For all the qualities in this group it has been established that there is no statistically significant difference between both students' values and the expert's evaluation.

✓ Qualities such as diligence, humanism and fairness have a high average value in both student groups. The range for X_1 is from 5,06 to 5,48. Experts also give high values, X_2 is 4,80 to 5,24.

The analysis of the data gives us a reason to define the level of moral qualities as adequate for the requirements, according to which there is an educational activity from the sports teacher's side. We definitely consider that the sports competition

activity, carried out by the student is a positive factor in the development of their morale. Its beneficial influence is determined by its specific nature and the resulting peculiarities of the interpersonal contacts between sports people.

Table 4. Comparative analysis of the results for the level of moral qualities

| | Qualities | Group | Self evaluation | | Expert assessment | | d | t | Pt |
|---|------------|-------|-----------------|-------|-------------------|-------|-------|------|------|
| | | | X_1 | S_1 | X_2 | S_2 | | | |
| 1 | Diligence | m | 5,07 | 1,14 | 4,80 | 1,51 | 0,27 | 1,21 | <95% |
| | | f | 5,10 | 0,93 | 5,17 | 1,02 | -0,07 | 0,31 | <95% |
| 2 | Humility | m | 4,08 | 1,50 | 3,94 | 1,63 | 0,14 | 0,53 | <95% |
| | | f | 4,40 | 1,41 | 4,25 | 1,31 | 0,15 | 0,52 | <95% |
| 3 | Humanism | m | 5,07 | 0,84 | 4,90 | 0,99 | 0,17 | 1,08 | <95% |
| | | f | 5,48 | 0,68 | 5,24 | 0,70 | 0,24 | 1,70 | <95% |
| 4 | Fairness | m | 5,18 | 0,68 | 5,03 | 0,69 | 0,15 | 1,34 | <95% |
| | | f | 5,06 | 0,86 | 5,12 | 0,75 | -0,06 | 0,38 | <95% |
| 5 | Aesthetics | m | 4,62 | 1,09 | 4,58 | 1,35 | 0,04 | 0,27 | <95% |
| | | f | 4,98 | 0,91 | 5,03 | 0,72 | -0,05 | 0,33 | <95% |

Note: the critical values of the t-criteria of Student with $\kappa=n_1+n_2-2=142$ u $\alpha=0,05$ equals 1,97 (men); $\kappa=n_1+n_2-2=94$ u $\alpha=0,05$ equals 1,98 (women)

Table 5 displays the results from the comparative analysis of the *specific pedagogical-professional* qualities. They synthesize in a generalized way the achieved level of practical professional knowledge and skills. As components to the physical and mental readiness, they define the professional suitability of the sports teacher for pedagogical activity.

Table 5. Comparative analyses of the results for the level of specific pedagogical-professional qualities

| | Qualities | Group | Self evaluation | | Expert assessment | | d | t | Pt |
|---|------------------------|-------|-----------------|-------|-------------------|-------|-------|------|------|
| | | | X_1 | S_1 | X_2 | S_2 | | | |
| 1 | Methodical preparation | m | 5,04 | 0,61 | 4,80 | 0,68 | 0,24 | 2,19 | >99% |
| | | f | 4,75 | 0,73 | 5,19 | 0,67 | -0,44 | 3,06 | >99% |
| 2 | Physical culture | m | 5,32 | 0,82 | 5,02 | 0,39 | 0,30 | 2,76 | >99% |
| | | f | 5,52 | 0,74 | 4,73 | 0,61 | 0,79 | 5,70 | >99% |
| 3 | Activity efficiency | m | 4,92 | 0,74 | 4,76 | 1,06 | 0,16 | 1,00 | <95% |
| | | f | 5,21 | 0,80 | 4,69 | 1,19 | 0,61 | 2,52 | >95% |
| 4 | Pedagogical tact | m | 4,38 | 1,05 | 4,06 | 1,55 | 0,32 | 1,45 | <95% |
| | | f | 4,62 | 0,91 | 4,40 | 0,79 | 0,22 | 1,31 | <95% |
| 5 | Personal example | m | 5,07 | 0,70 | 4,81 | 0,90 | 0,24 | 1,75 | <95% |
| | | f | 5,06 | 0,86 | 4,78 | 0,84 | 0,28 | 1,59 | <95% |

Note: the critical values of the t-criteria of Student with $\kappa=n_1+n_2-2=142$ u $\alpha=0,05$ equals 1,97 (men); $\kappa=n_1+n_2-2=94$ u $\alpha=0,05$ equals 1,98 (women)

It is noticeable that on the quality of physical culture, the researched students give a high self-evaluation. The difference with the expert assessment is statistically sounded for both groups. (Pt >99%). We suppose that the student's self-esteem comes only from their achievements in the sports that they are training. In reality, the physical culture of the sports teacher is a

combination of skills from all sports included in the educational plan for the purpose of his specialized professional training.

From the methodical-practical training, it is interested to note that the female students have evaluated themselves lower than the experts have. The male students on the other hand exhibit the exact opposite tendency. It is evident that the female students are far more critical in the achievement in this quality.

The students have objectively evaluated the level of their pedagogical tact (as far as they have had the opportunity to display it) and have given values that are not that different from the expert's assessment. (Pt <95%).

Personal example is a complex quality, which defines the sports teacher's position in the educational system. The average values established from the students' evaluation, are close for both groups. We can assume that it is objective because there is no statistically considerable difference, when compared to the experts' assessment.

CONCLUSIONS

On the base of the analysis, we can make the following conclusions:

1. We confirm the fact that the evaluation of the personal and professional qualities has no universal nature, but is highly dependent on the viewpoint of every individual and his social experience.

2. In the context of their readiness for a professional activity in the physical education and sport, the evaluated students appraise their personal and professional qualities as high and very high.

3. Students possess adequate skills for an objective assessment of their own qualities, despite the occasional overestimation, which is typical for young people at this age and is most probably due to inexperience in the social sphere. It is necessary to perfect those skills through the ap-

plication of the contemporary psychological and pedagogical approaches in the university training based on scientifically acclaimed criteria for evaluating the qualities of the sports teachers.

REFERENCES

- Chesnokov, A. (2001). *Formirovanie professionalnykh kachestv pedagoga po fizicheskoy kulture*. V: *Teoriya i praktika fizicheskoy kulture*. 2001, №10.
- Ivanov, I. (2006). *Pedagogicheska diagnostika*. Shumen, Univ. izd. „Ep. Konstantin Preslavski”, s. 207.
- Popov, N. (1999). *General Psychology*. S., NSA Pres,
- Ross, J. (2006). The Reliability, Validity and Utility of Self-Assessment. *Practical Assessment, Research & Evaluation*, vol.11, No 10. Retrieved December, 20,
- St, Z. (1995). *Izmereniia na uchitelstviia profesionalizym*. *Pedagogika*, 3.
- Tsonkova, D. (2006). *Syvremenni aspekti na profesionalnata podgotovka na sportniia pedagog*. V. Tyrnovo, Univ. izd. „Sv. sv. Kiril i Metodij”.
- Volkova, I. (2002). *Praktikum po sportivnoj psihologii*. Piter: Sankt Peterburg, Piter.
- Zh, T. (2006). *Chovekyt i negovata samoocenka*. *Psihologiya zhurnal*. 2006, 7

TEACHING AND LEARNING OF ECOLOGY FOR THE STUDENTS OF VOCATIONAL SECONDARY SCHOOLS IN MULTIMEDIA ENVIRONMENT

Dr. Vladimir Matić, Vocational School, Vukovar, Croatia
E-mail: vladimir.matic@vu.t-com.hr

Abstract: This is a multidisciplinary paper presenting a synthesis of informational, educational, and ecological factors. This author discusses the inter-relationship between the aforementioned factors by means of an analysis of a comprehensive model of information-communication technology (ICT) support in the teaching and learning of ecology for students of vocational schools. In other words, the objective of the paper is to define accurately the manner, time, and extent to which computers, educational software, internet, as well as other modes of information – communication technology (ICT) are used in the ecology-related subjects taught in vocational schools, i.e. to offer a model of ICT support the implementation of which will be possible not only in ecology lessons, but other subjects with associated ecological contents as well.

Keywords: model; teaching and learning; computers; methods.

1. INTRODUCTION

The paper analyses the issue of information-communication technology (ICT) support in the teaching and learning of ecology in vocational secondary schools. This issue was the focus of author's MSc paper Matić, V. (1987) which argued that the implementation of computers in ecology lessons can significantly contribute to more efficient education as compared with more traditional approaches. On the grounds of the experience obtained through a research conducted previously on both the global and national level, the author has created an ICT model to provide support in the teaching and learning of ecology for students of vocational schools, which he deems could be successfully introduced in a teaching-learning process. Primarily, the model envisages the use of computers and other information

technologies in the process of teaching and learning of ecology; however, if the model is modified to a certain extent, it can be also implemented in the teaching and learning of other subjects related with ecology.

The backbone of the model is the support by means of an IT programme developed and tailored to meet the needs of the conducted survey. Namely, it suggests a multimedia and interactive schoolbook on ecology depicting part of the syllabus called 'ENVIRONMENT AND ECOLOGY', a section of Biology course book, designated for the first and second-year students of vocational secondary schools (Vrček, Lj. (2007)). It is designed to be used together with other information technology toolkits (the Internet, LCD projector, Webcam, etc.) in the multi-media school environment.

The survey was carried out at Vukovar Vocational Secondary School on a sample of 400 first and second-year students and 10 teachers and associate educators whose opinion is relevant to this field.

The study was carried out through a comparative analysis of two groups of participants. Firstly, there was a group of the students that had lectures on the aforementioned topic in a traditional classroom where the lessons had been given in a traditional approach. Secondly, there was another group of the students that had learned about the same topic on their own in a multi-media environment (IT classroom) using the aforementioned application and access to the Internet as well as information technologies.

Then, all participants were divided into the groups of approx twenty students who were asked to complete a question-

naire about their opinion on learning ecology by means of IT support and determine whether it is more efficient than the traditional learning approach. The teachers and educators were asked to complete the same survey as a separate group. The results of the survey clearly lead to a conclusion that the teaching and learning of ecology in vocational schools supported by IT programme is much more efficient than the traditional approach.

2. OBJECTIVE OF THE PAPER

The core objective of this paper is to indicate, based on theoretical research and the practical application of IT support in the teaching and learning of ecology in vocational schools, the statistically significant possibility of increasing the students' overall level and quality of knowledge on ecology. Naturally, besides the core objective, there are some secondary objectives, which include:

(1) Acquiring knowledge on the level to which IT support in the teaching and learning of ecology in vocational schools has effects on the quality and quantity of the acquired knowledge,

(2) Determining how time-efficient the result of applying IT support in the teaching and learning of ecology in vocational schools is compared with traditional approach,

(3) Illustrating the extent to which IT support in the teaching and learning of ecology in vocational schools influences the growth of the students' motivation in the overall educational process.

Determining the extent to which the model of IT support in the teaching and learning of ecology in vocational schools takes into consideration the wide range of students' individual abilities.

3. METHODS, TECHNIQUES AND RESEARCH INSTRUMENTS

Methods of induction and deduction, analysis and synthesis, simulation, compilation, and comparison are used in this paper.

The research techniques used in this paper are as follows:

- (1) Analysis of professional literature,
- (2) Tests,
- (3) Observation-monitoring,
- (4) Questionnaire,
- (5) Data processing.

For the validity of the sample this research was conducted by means of a random sample of number of individuals from 30 class-groups learning different vocations at the Vukovar Vocational Secondary School.

Besides the students, teachers and associated educators, a school pedagogue took part in this research that greatly enhanced the quality of the results.

The research was carried out in the following stages:

(1) Developing the research project design (designing the project, accepting the research project, making the layouts and protocols, and testing the software),

(2) Collecting the data (collecting the data that enabled the assessment of the hypothesis made),

(3) Classifying and processing the obtained data (processing the data, presenting the given results, summarising the most valuable results of the research and final discussion).

The following methods of processing the data statistically were used in this paper: IDA analysis (Initial Data Analysis), EDA analysis (Exploratory Data Analysis) and synthesis.

Prior to the research, the students were given no information on the contents of the research. However, the teachers and associated educators were informed about

the contents and techniques of collecting and processing the data shortly prior to the commencement of the research.

Having done the tests, the students were given the evaluation forms which enabled them to give their own assessment of the validity of the IT support model in the teaching and learning of ecology in the school they are attending. Their remarks and suggestions will have huge significance for the first revision of the developed IT support model.

The research was executed in the 2008/2009 and 2009/2010 school year.

A. The role of IT support in teaching and learning ecology for students of vocational schools

Analysing the syllabus, educational plans and programmes of the vocations for which the research was conducted, it was determined that apart from ecology, there is a whole range of school subjects that deal with ecological subject matter. It was therefore, concluded that IT support in the teaching and learning of ecology could be implemented in the teaching and learning of other school subjects providing that certain modifications to the model are made.

B. IT support in the teaching and learning of Science

In addition to the teaching and learning of ecology, the school syllabus associated with protection and improvement of workplace conditions and life environment is present in other school subjects. Analysis of the syllabuses and framework educational programmes shows that the ecological themes are also present in the teaching and learning of science. Finally, social studies courses also touch on related themes. Table 1. shows science courses whose syllabus tackle ecological issues.

Table 1. Overview of science courses whose syllabus tackle ecological issues

| No. | School Subject | Programme –Vocation | | | | | | | |
|-----|-------------------------------------|---|-------------------------|--------------------------|--|--------|------|-------------|------------|
| | | Agricultural technician phyto pharmacist | Technician nutritionist | Hotel tourist technician | Tourist and hotel business administrator | Waiter | Cook | Hairdresser | Beautician |
| 1. | Biology | | | | | | | | |
| 2. | Biology with Ecology | | | | | | | | |
| 3. | Biology with Hygiene and Ecology | | | | | | | | |
| 4. | Ecological food production | | | | | | | | |
| 5. | Work Safety, Hygiene and Sanitation | | | | | | | | |
| 6. | Plant protection | | | | | | | | |
| 7. | Biology and Ecology | | | | | | | | |
| 8. | Practice | | | | | | | | |

The research was conducted on a sample of four 4-year vocational courses the and four 3-year vocational courses. These included the courses providing training for the following vocations: agricultural technician phyto pharmacist, technician nutritionist, hotel tourist technician (as one group), and tourist and hotel business administrator, waiters, cooks, hairdressers and beauticians.

Taking into account all particularities and differences in these programmes, we find out that the IT support model tested in this research can be implemented in the teaching and learning of this group of school subjects. It goes without saying that the model used should be modified to meet the needs of each case and adapted to the programme of each individual course.

C. IT support in the teaching and learning of social studies

The number of the social studies classes which touch on ecological issues is

small. However, as they do cover topics and themes which are related to ecology they should not be neglected. On contrary, the IT support model tested in the conducted research can also be used, with minor modifications, in the teaching and learning of social studies provided that it takes into account all factors related with the group of science school subjects. Table 2. shows social studies course whose syllabus tackle with ecological issues.

Table 2. Overview of social studies course whose syllabus tackle with ecological issues

| No. | School Subject | Programme – Vocation | | | | | | | |
|-----|--------------------------------|-------------------------------------|--------------------------|---------------------------|---|--------|------|-------------|------------|
| | | Agricultural technician phar-macist | Technician nutri-cionist | Hotel tourist techni-cian | Tourist and hotel business administra-tor | Waitor | Cook | Hairdresser | Beautician |
| 1. | Ethics | | | | | | | | |
| 2. | Geography | | | | | | | | |
| 3. | Tourism – associated geography | | | | | | | | |
| 4. | Practice | | | | | | | | |

In order to undertake this research, the author developed a multimedia and interactive course book on ecology which combines part of a Biology course book for the first and second-year students which compresses the ecological issues, student's personal remarks, Biology teacher's remarks, experiments carried out at the school laboratory and as a field works, videos and sound database.

An 'assessment test' adds a special interactive feature to the course book offering the students the opportunity for self-assessment, revision and check of the individual and group results. The majority of students find this way of learning more efficient and effective than the traditional approach.

Unfortunately, it must be stated that in our country there is a lack of educational software tailored to the teaching and learning of ecology. In particular, this lacuna affects the students of vocational schools.

This means in practice that the teachers have to develop educational software on their own; as was exemplified by this research. Another option is to purchase relevant software from abroad and adapt to meet local needs.

In this light, it is most realistic to expect that educational software will be developed by ecology teachers themselves. They should be thought of as project leaders who will seek the advice and assistance of other experts (software designers, sociologists, and pedagogues).

The model used in this project tailored to meet the needs of this research is only one example of how this can be done. It is the result of the author's long-term questioning of the problem of how to put together information technology, ecology and education. It is derived from a carefully maintained web diary, which Dave Winer defines as 'personal records on the web site and part of community'. In terms of methodology, this consists of a blog on the Internet available to all those sharing the same interest and a place where they can give their personal remarks and suggestions and in that way, they can contribute to better final solution.

D. Computers and modern information technologies aimed at the teaching and learning of ecology in vocational schools

Computers have posed a challenging task for all those striving for the enhancement of educational processes and the introduction of innovative elements to increase the overall quality of education. Owing to the fact that they are an exceptionally suitable means of communication between students and teachers, computers also play an important role in the teaching and learning of ecology for students of vocational schools.

Learning ecology by the young, notably the students of vocational secondary schools by means of computers and other

IT toolkits is a relatively new activity which has not been elaborated in detail yet. The research conducted by the author of this paper shows that the application of appropriate IT support makes it possible to eliminate a whole range of weaknesses featured in a traditional approach to the teaching and learning of ecology. They are as follows:

- (1) Insufficient productivity and efficiency,
- (2) Insufficient application of the acquired knowledge and skills in practice,
- (3) Teaching and learning that are not adapted to individual abilities of students and insufficient motivation to learn,
- (4) With the dominance of a verbal teaching methods in traditional approaches,
- (5) Lack of efficient observation of knowledge attainment, etc.

The research shows that, besides computers, it is possible to use other information technology toolkits, e.g. TLP and LCD projector, overhead projector with LCD panel, cassette player, video, etc. in the teaching and learning of ecology for the students of vocational schools. Naturally, access to the Internet is a must-have.

A whole range of new toolkits that can be used as IT support in the teaching and learning of ecology and other subjects associated with ecological themes have appeared on the market lately.

Particular advantages in the teaching of ecology for the students of vocational schools are provided by the *micro camera*. It is most frequently used in the teaching and learning of Biology and Chemistry, and it enables the reproduction of the fine details on a TV screen or LCD projector. It enables direct reproduction of images/pictures and graphs from the course books which significantly improves the quality of teaching and learning and, in parallel, saves time for the teachers when preparing the lectures. In addition, this

camera can be connected to a microscope by means of a special adapter to gain enlarged images on an LCD projector or TV screen.

An important component of IT support in the teaching and learning of ecology in vocational schools is an interactive electronic board. Combined with MIMIO Xi technology, a common whiteboard becomes interactive. Instead of ordinary ones, electronic felt-tips are used for writing. The written text can be stored in the memory of a computer and reused whenever needed. This technology allows the teachers to add the images and graphs as well as texts from other programmes. It can be written in 48 colours and projected by an LCD projector or be shown on a TV screen.

Naturally, modern multimedia-supported teaching and learning cannot be imagined without a Web camera, VHS camera, and quality digital camera. These are the tools that are used not only for projection of the teaching materials, but also enable the teachers to develop new materials. It is not a rule, but in most cases, the best quality teaching materials used in multimedia teaching are created at schools. As stated in the introduction, such materials are developed by teachers of different professions (subject teachers, pedagogue, sociologists, etc.).

Input and output units which provide access to the desired information as well as automatic acceptance of the data from the environment play an important role in the dissemination and learning of ecology. These units consist of the following elements: a TV camera, a microphone, a scanner, etc. They generate the multimedia entities such as videos or audio records, etc.

All information technologies listed here, including the educational software designed by the author of this paper, were used for modelling the IT support for the teaching and learning of ecology for the students of vocational schools. The product

is ILS type model, which integrates teaching and learning ecology.

This model includes a multimedia informational system which simultaneously deploys various forms of information (texts, graphics, animation, music, speech) by means of interactive communication with the user. Modelling of this type of informational system requires good knowledge of informational, educational, and ecological factors and their inter-relationship in order to define the time, manner, and the extent to which computers, software, Internet as well as other information – communication technologies are used in an educational process in vocational schools. Normally, this model has combined aim of enabling the implementation of the tailored model in teaching and learning ecology with the learning and teaching of all other subjects which deal with ecology-related themes.

E. Informational laboratories and IT classroom in the teaching and learning of the students of vocational schools

National pedagogical standards of secondary educational system in the Republic of Croatia (National gazette – NN, No. 63/08 and No. 90/10) regulate uniformed conditions of a quality for educational procedures and the successful realisation of goals and tasks in secondary school system. In terms of facilities designated for exercising the vocational schools' syllabuses, the standards do not require multimedia classrooms. However they regulate that schools must have IT classrooms (laboratories) equipped with a computer network consisting of a server and fifteen computers.

This was the reason that the experimental part of this research was carried out in the IT classroom of Vukovar Vocational Secondary School. The hardware tailored for equipping the IT classrooms of secondary schools in Croatia approved by the Ministry of Science, Education and Sports

of the Republic of Croatia was used. In addition to this hardware, we used the educational software developed for the needs of this research by the author of this paper.

The backbone of the model of IT support in the teaching and learning ecology for the students of vocational schools used in this research is a model based on a multimedia and interactive course book on 'ENVIRONMENT AND ECOLOGY' designed as an application which joins the external modules of specific purposes. The application encompassed the teaching materials of the aforementioned topics from the course book (P. Hotomski, 2004), out of which the author has used the integral text. This course book was intended for the first and second-year students of vocational schools, so that it was the reason why the research was conducted on this group of research subjects.

To develop the multimedia and interactive ecology book, we used Microsoft Visual Studio 2008 and ASP.NET platform Framework 3.5. The application was developed as a webpage in order to make it available to all those interested in it. This was produced along with a guided code for all platforms. It supports Microsoft Windows, Windows Mobile, Windows CE, .NET Framework, .NET Compact Framework and Microsoft Silverlight.

One crucial characteristic of this multimedia book is its interactivity. Hence, the book included a self-assessment test section, a check-your-result section, and a revise section. Fig. 1 shows the home page.



Fig. 1 Home page

Interactive features add special quality to the multimedia book by providing a 'self-assessment test' through which the respondents carried out a 'test- yourself task'. This offered the students a possibility to revise and check their individual and collective test scores (Figure 2-5).



Fig. 2 Questions



Fig. 3 Incorrect answers – go back



Fig. 4 Correct answers – next question



Fig. 5 Score

4. DISCUSSING THE RESULTS OF THE RESEARCH

With the aim of proving that this model of IT support in the teaching and learning of ecology for the students of vocational schools increases the overall efficiency of the educational process, i. e. in order to confirm the main thesis of this research I examined the data shown in Table 1 which is a synthesis of the results obtained from the respondents giving their answers to twenty questionnaire questions. The objective was to learn about their opinion on the advantages of the teaching and learning of ecology supported by the author's IT model comparing when compared with traditional teaching approaches. Only the correct answers were taken into consideration. Table 3 shows synthesis-based overview of the correct answers.

A comparative analysis shows that the IT supported teaching and learning was far more efficient than the traditional approach. Out of 400 respondents who took part in the research, 206 students (51.49%) that had learned in the traditional way gave the correct answers to the questions. This number was significantly larger among the students who had learned through an IT supported course.

Table 3. Synthesis-based overview of the correct answers obtained from a test given to students who had undertaken a traditional ecology course and students who had taken an it supported course

| Question | Tr | Ip | Tr [%] | Ip [%] |
|----------|----|----|--------|--------|
| 1. | 98 | 14 | 49,50 | 78,50 |
| 2. | 96 | 18 | 49,00 | 79,50 |
| 3. | 44 | 94 | 36,00 | 48,50 |
| 4. | 27 | 95 | 31,75 | 48,75 |
| 5. | 42 | 36 | 60,50 | 84,00 |
| 6. | 86 | 70 | 46,50 | 67,50 |

| | | | | |
|-----|----|----|-------|-------|
| 7. | 19 | 03 | 29,75 | 50,75 |
| 8. | 08 | 72 | 77,00 | 93,00 |
| 9. | 49 | 41 | 62,35 | 85,25 |
| 10. | 58 | 57 | 64,50 | 89,25 |
| 11. | 81 | 76 | 45,25 | 69,00 |
| 12. | 53 | 14 | 63,25 | 78,50 |
| 13. | 07 | 18 | 51,75 | 79,55 |
| 14. | 98 | 74 | 49,50 | 68,50 |
| 15. | 72 | 08 | 43,00 | 77,00 |
| 16. | 08 | 38 | 52,00 | 84,50 |
| 17. | 48 | 65 | 37,00 | 66,25 |
| 18. | 10 | 99 | 52,50 | 74,75 |
| 19. | 38 | 29 | 59,50 | 82,25 |
| 20. | 77 | 47 | 69,25 | 86,75 |

The data shown in the table were used to calculate the ratio of the correct answers between the two research populations.

$$\sum Tr = Tr_1 + Tr_2 + \dots + Tr_{20}$$

$$\sum Tr = 4119$$

$$\sum Tr/20 = 205,95$$

$$\sum Ip = Ip_1 + Ip_2 + \dots + Ip_{20}$$

$$\sum Ip = 5968$$

$$\sum Ip/20 = 298,40$$

$$\sum Tr[\%] = Tr_1[\%] + Tr_2[\%] + \dots + Tr_{20}[\%]$$

$$\sum Tr[\%] = 1029,85$$

$$\sum Tr[\%]/20 = 51,49$$

$$\sum Ip[\%] = Ip_1[\%] + Ip_2[\%] + \dots + Ip_{20}[\%]$$

$$\sum Ip[\%] = 5968$$

$$\sum Ip[\%]/20 = 74,60$$

The fact that 298 students (74.60%) answered the questions correctly indicates that the IT supported way of learning is more efficient than the traditional approach. In addition, it confirms the main hypothesis of the scientific research work that 'the author's applied model of IT support in the teaching and learning ecology for the students of vocational schools increases the overall efficiency of the educational processes.

Fig. 6 shows the correct answers by the respondents obtained from both traditional and IT supported approaches to learning. It clearly shows that the IT supported approaches to learning are much more efficient than the traditional approach to teaching and learning ecology.

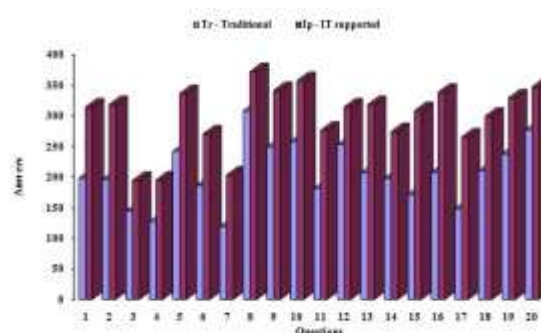


Fig. 6 Correct answers by the respondents obtained from both traditional and IT supported approaches to learning

A. Evaluation of the research-based results

Taking into account the subject, problem, objectives, and tasks of this paper it is possible to conclude that this frequently tackled and practical issue of up-dating not only the lessons of ecology and ecological awareness of the students of vocational schools, but education as a whole.

Today, modern ICT toolkits have become an inevitable part of a contemporary educational system. Having been invented and implemented in education, they have

made the teaching and learning process prone to modifications. These modifications encompass not only the changes of and supplements to the school syllabuses and programmes of particular school subjects, including ecology as well, but also require completely different organisation of the educational process and the application of new teaching materials and tools along with adapted teaching methods, techniques and manner of teaching.

Regard to the scientific and social justification of the conducted research, it is must be said here that they have to be separated from each other and observed individually. Scientific research is aimed at gaining new knowledge and facts, which can significantly influence the society to change. These changes are most frequently noticeable in the quality of life of an individual and society in its whole.

To some extent, the social problems recognised scientifically initiate further research works associated with a particular area. The current global trends indicate a rise in the significance of ICT. In order to achieve optimal implementation of these technologies in education, it is necessary to determine the time, manner and extent to which computers, software, Internet, etc. can be used in the teaching and learning of ecology for the students of vocational schools, i.e. to offer a model of IT support whose implementation will be possible not only in the learning and teaching ecology, but also for other subjects dealing with ecology-related themes.

The results obtained through this research with no doubt lead to a conclusion that the state of the teaching and learning of ecology and other subjects with ecological themes is quite bad in terms of IT support (equipment) in the teaching and learning of ecology for the students of vocational schools. Having understood the current conditions, the author of this paper has made an attempt to give his contribution to the introduction of modern information technology into the teaching and learning of ecology for the students of vocational

schools and indicate newly opened fields to be further researched.

Scientific justification is enhanced by statistical data obtained through a survey on 400 students and 10 teachers and associated educators of Vukovar Vocational Secondary School where the research was carried out. Analysis of the results indicates the current situation at the school in terms of IT equipment and the IT classroom, which is only occasionally used as a multimedia classroom. Additionally, the research provided information on the manner of teaching and learning of ecology in terms of the application of traditional approaches and IT supported approaches to teaching. The teachers' opinion on the advantages of the IT supported teaching and learning of ecology is an exceptionally valuable contribution to the results of the research.

The following IT support toolkits are most frequently used in a teaching process: overhead projector, computers, Internet, and LCD projector. However, the ecology lessons are not carried out in a multimedia classroom, but in a traditional one. The most challenging problem they have to tackle within the teaching process is a lack of educational software tailored to meet the needs of teaching ecology. Naturally, other factors must be taken into consideration, e.g. insufficient training/skills of using the IT support, inability to use the IT classroom, etc.

The results of the research are encouraging in terms of the application of the educational software designed by the author of this paper given that all teachers who took part in the research shared the opinion that this model of teaching can significantly contribute to advancements and improvement in the teaching and learning of ecology for the students of vocational schools, and an overall increase of the efficiency of the teaching and learning process.

All interviewed teachers and associate educators had the opinion that the application of computers and other IT ele-

ments enhanced the teaching and learning of ecology for the students of vocational schools. As much as 70% of the interviewed teachers think that the model of IT support in the teaching and learning of ecology used here has had positive effects on the efficiency of the teaching and learning process. The noted that IT supported learning:

- (1) Enhances the students' motivation (80% respondents)
- (2) Shortens the time required for learning (60% respondents)
- (3) Provides a higher level of information retention (70% respondents)
- (4) Takes into account the individual learner's abilities and working rhythm (50% respondents),
- (5) Enables students to score the acquired knowledge levels and test results (80% respondents).

Regarding the effects of IT on the speed of transformation of the humans' work and life conditions and functioning of the society as a whole, not only globally, but locally, the conducted research supports its social justification. Advancement of IT application in education, as a social subsystem, is a prerequisite for the betterment of the global society; thus the obtained results will surely do their bit in the modernisation of education in the future.

Today, the advancement of IT application in education has a direct impact on the development and position of a society in the global world order. Therefore, this paper can be seen as a small contribution to the advancement of IT application in ecology-associated education for the students of vocational schools as a subsystems of education. The use of IT support in the teaching and learning of ecology and other school subjects dealing with ecology requires teachers to master IT skills. Only the teachers with excellent IT skills can successfully use the modern ICT in the teaching and learning process. Differently from our, I dare to say, poor experience in the implementation of these technologies in the teaching and learning of ecology,

global experience is quite different given that IT assisted learning has become the norm over the last few decades. Due to this fact, we highlighted only the genera, namely initial guidelines of IT application and elaborated the global model of IT support in the teaching and learning of ecology for the students of vocational schools.

The scientific and social justification of the paper surely indicate the possibility of further theoretical and practical research in the field of the teaching and learning of ecology for the students of vocational schools by means of implementation of modern ICT in education approach with the aim of improving the educational process as a whole.

Most of the interviewed students find this way of teaching and learning much more efficient than the traditional one.

The research encompassed the assessment tests and measured the relevant parameters influencing the efficiency of this kind of teaching and learning. The measuring of the relevant parameters and analysis of the obtained results were carried out by means of standard statistical methods.

The most significant scientific contribution of the research is a formal specification of the sum-total of educational methods and ICT for the realisation of support to a traditional education. Also, it is a proof of better quantitative and qualitative results of learning school syllabuses in the IT supported teaching and learning of ecology and other subjects that touch ecological themes.

The unique/original contributions of this research are as follows:

- (1) It provides an analysis of the methods of the traditional approach to the teaching and learning of ecology for the students of vocational schools with the aim of developing an adequate model of IT support
- (2) Selecting the most representative tasks of particular teaching units and adding them to a section called 'acquired knowledge assessment tests' enabling the

interviewed students to do 'self-assessment tests', revise and see the individual and collective test results,

(3) It created a novel, interactive course book on ecology in real conditions and demonstrated its effectiveness through testing it on the sample of the students of Vukovar Vocational Secondary School and provided an overview of the results of its implementation.

5. CONCLUSION

Through the history of humanity, there have been the technological advances that can be implemented in a teaching and learning process to make it more efficient. The early 21st century has been marked by the application of modern ICT so that a traditional approach to teaching and learning is gradually losing its previous significance.

Hence, teaching and learning of ecology and other subjects touching ecological themes is becoming interdisciplinary. This indicates that interdisciplinary teaching is becoming increasingly important and that cross-curriculum teaching and learning has become an indispensable factor in the teaching and learning of ecology for the students of vocational schools.

The most crucial challenge tackled in this research, is the role of IT support in the teaching and learning of ecology for young. This research demonstrated that IT supported learning enhances the teaching and learning process.

The objectives and tasks of the research were obtained by means of science-based analysis of the quality and quantity of the extent to which the traditional technology and information-communication technology aimed at educational purposes, level of the teachers' education and skills in the application of modern educational technologies to teaching and learning ecology, and development of a model of IT support in teaching and learning ecology for the students of vocational schools.

In addition, the general hypothesis of this research work has been confirmed: 'the model of IT support used in the teaching and learning of ecology for the students of vocational schools enhances the overall efficiency of the teaching and learning processes.

Along with taking into account the fact that the teaching and learning of ecology and other subjects dealing with ecology themes in the IT-based school environment becomes interdisciplinary, it is necessary for the teachers to put additional effort to master the use of these technologies, which is not the case in traditional education.

The Internet as a global network becomes a medium in a global communication and provides almost an infinite source of teaching materials for all school subjects, including ecology as well. The use of these resources in the teaching and learning of ecology for the students of vocational schools is largely dependent on the teacher's competence to evaluate correctly the available educational software, but authentic teaching materials on ecology in line with the objectives and tasks of school syllabuses, plans, and programmes.

Today, educated teachers are the source of economic power enabling development of the modern society. Education in developed countries is the best profit-gaining sector, but it asks for permanent improvement of the methods, means, and processes of teaching and learning. In this process, the computers and modern information – communication technology (ICT) play a significant role which affects the efficiency of the teaching and learning process; hence the teaching and learning of ecology for the students of vocational schools, too.

REFERENCES

- Hotomski, P. (2004). *Sistemi veštačke inteligencije*, Tehnički fakultet "Mihajlo Pupin, Zrenjanin

- Marinković, R. (2004). Inteligentni sustavi za poučavanje, *Hrvatska zajednica tehničke kulture*, Zagreb
- Matić, V. (1987). Proizvodno-tehničko obrazovanje i vaspitanje u funkciji zaštite i unapređivanja životne i radne sredine, *Magistarski rad*, Centar za multidisciplinarne studije, Beograd
- Matić, V. (2012). Environmental Education of Students in Vocational Schools in a Multimedia Surrounding, *IEEE 35th international convention*, Opatija
- Matijević, M., L. & Bognar (2005). *Didaktika*, Školska knjiga, Zagreb
- Mužić, V. (1974). *Programirana nastava*, Školska knjiga, Zagreb
- Papić, M. (2005). Primijenjena statistika u MS Excelu za ekonomiste i znanstvenike, *Naklada Zoro*, Zagreb
- R. C. Clark, R. Mayer (2001). *E-Learning and science of Instruction*, San Francisco, Pfeiffer
- Rodek, S. (1986). Kompjutor i suvremena nastavna tehnologija, *Školske novine*, Zagreb
- S. Alessi & S. Trollip (2001). *Multimedia for Learning*, Massachusetts, Allyn & Bacon, Pearson Publishing Company
- Stanković, Ž. (2009). E-učenje, *Zavod za unapređivanje obrazovanja i vaspitanja*, Beograd
- Tobolka, E. (2002). Model računarski podržane nastave engleskog jezika i metode njene realizacije kao faktor unapređenja i informatizacije obrazovanja, *Doktorska disertacija*, Tehnički fakultet "Mihajlo Pupin", Zrenjanin
- Turza, K. (2005). Medicina i društvo – socio-loški aspekti, *Medicinski fakultet Univerziteta u Beogradu*, Beograd
- Voskresenski, K. (2004). Didaktika za profesore informatike i mehanike, Tehnički fakultet "Mihajlo Pupin", Zrenjanin
- Vrček, Lj. (2007). Biologija, udžbenik za strukovne škole, *svezak C, Profil*, Zagreb

ACCURACY IN FOOTBALL: SCORING A GOAL AS THE ULTIMATE OBJECTIVE OF FOOTBALL GAME

Dr. Dejan Milenković, Faculty of Sport and Physical Education, Niš, Serbia

E-mail: dejan_milenkovic79@yahoo.com

Dr. Igor Stanojević, College of professionals studies educators, Aleksinac, Serbia

E-mail: stanojevic3@gmail.com

Abstract: The study included 60 young football players aged 10 and 11 years with the aim to examine the influence of motor skills on a specific accuracy in football. The following tests for assessment of motoric abilities were used: Coordination: jumping over the horizontal rope, envelope test, figure „8“ with bending; Flexibility: forward bend-standing upper-body rotation-touch, the splits, side-stepping with a baton; Balance: standing on one leg along the balance bench, standing on one leg with eyes closed, flamingo test. Tests for specific accuracy in football included: elevational accuracy by foot - vertical target, elevational accuracy by foot - horizontal target, linear accuracy by foot - vertical target, the hits of ball by foot on the wall after it rebounds from the surface, elevational accuracy by head - vertical target and elevational accuracy by head - horizontal target. Results obtained by processing the data applying canonical correlation and regression analysis indicated the indisputable influence of motor abilities of young football players on the majority of specific accuracy tests.

Keywords: football, accuracy, motoric abilities.

1. INTRODUCTION

The result in football depends on psychomotor factors (strength, speed, endurance, flexibility, coordination and accuracy), psychological factors (cognitive, conative, social), incentive structure, teaching and training methods, variety of external factors (playground, referees, equipment, public etc.), and error factors. The most important factors are those of psychomotor abilities of the players, because the successful resolution of the situation in a football game is mainly performed by motoric activities. During the game, better chances are on the side of

those players who have these factors in optimal ratio. In the course of the training process with players, many factors can be effectively influenced, particularly the psychomotor ones, particularly on endurance, where the teaching and training methods are very significant for the process. The level of success in playing is highly affected by the environment as well as by the factor of chance. Football game with its variable, complex and unpredictable situations leads to the impact of coincidence on success. The higher the level of getting to know the coefficient of participation of the other factors the minor the errors (Gabrijelić, 1982).

The development of the football game is moving towards simplification and speeding up of all actions at all times and at every part of the field. The consequence of such an approach to the game are quick and accurate combinations, short and long passes (Dukic, 2000). Evaluation of space and time in these situations plays a very important role and points out an important basic-motoric ability of performing accurately targeted and dosed movement, which has long been considered to be a type of coordination. However, analysis of motoric area over the years of researching, led to a special factor, called accuracy.

The accuracy depends on the center for perception and its connection with the reticular system, and represents a sensitive motor dimension, because the results largely vary depending on the emotional state of the person. The development of precision should start back in preschool age using a variety of basic games, especially those with the ball, where

children are going to practise precision targeting various types of targets (horizontal, vertical, movable, immovable) (Stojiljkovic, 2003). The motor ability is manifested in two ways: accuracy by precision shooting - ejection of an object toward the goal (shoot the ball into the net, then the basket, service in volleyball, ejecting arrows in archery, shooting firearms); precision by targeting - directing an object or part of the body toward the target (punch or kick into the body of the opponents in the martial arts, hit in fencing). Nićin (2000) suggests a third type of specific accuracy and he believes that the final hit in individual sports (tennis, table-tennis, golf, etc..) does not fall into any of the familiar types of precision, as with eg. table-tennis player who goals the ball first, through a system of hand-racket, then comes into contact with the ball, and finally shoots at the given spot.

When this is applied to a football game, precision depends on accuracy of the game. If a player is not characterized by this ability, it is not likely for him to fit into any tactical conception. However, accuracy is not the only element that is required in accurate and prompt hit, passing the ball or shots. It largely depends on the level of adoption of technical elements, speed and performance of coordination of movements, but also of agility - football is a sport of agility (Weineck, 1999).

Therefore, it can be said that the accuracy comes as a final layer of good combination of physical, technical and tactical preparedness of players.

The idea of this study was to find out whether and how much a part of physical fitness of players affects the realization of tasks in which the emphasis is on accuracy in various situations when playing both by foot and head. Accordingly, as accuracy is an essential element in the final outcome of football matches, this research was carried out in order to examine the

influence of motoric abilities on specific accuracy in football.

2. WORKING METHOD

The study included 60 young football players of 10 and 11 years old.

Tests for motoric abilities:

Coordination: jumping over the horizontal rope - JHR, envelope test - ET, figure „8“ with bending - FIG„8“;

Flexibility: forward bend, standing upper-body rotation, touch - FBSRT, the splits - SPLITS, side-stepping with a baton - SSWB;

Balance: standing on one leg along the balance bench - SLB, standing on one leg with eyes closed - SLEC, flamingo test - FLAM.

The tests were taken from Kurelić et al., (1975) and Šoške and Rado, (1998).

Tests for specific accuracy in football: elevational accuracy by foot - vertical target - EAFVT, elevational accuracy foot - horizontal target - EAFHT, linear accuracy by foot - vertical target - LAFVT, the hits of ball by foot on the wall after it rebounds from the surface - HBFRS, elevational accuracy by head - vertical target - EAHVT and elevational accuracy by head - horizontal target - EAHHT.

All subjects included in this study were healthy and voluntarily gave their consent for testing and participation in the research for this study.

Canonical correlation and regression analysis were used for the processing of data. Ratios that show the significance (P - level) marked with (*) determine the level of confidence of 95% and (**) determine the level of confidence of 99%.

3. RESEARCH RESULTS

The next chapter presents the results of canonical correlation and regression

analysis of motoric abilities and specific accuracy in football. Because of the large number of regression analyses that can be displayed in this two observed spaces, only the level of statistical significance is shown (P-level).

Table 1. Canonical correlational analysis

| | <i>Can.R</i> | <i>Can.R²</i> | <i>Chi-sqr.</i> | <i>df</i> | <i>P-level</i> |
|---|--------------|--------------------------|-----------------|-----------|----------------|
| 0 | .66 | .44 | 81.37 | 54 | .009** |

Table 1 shows the results of testing the level of integration between the predictor system of motoric abilities and the criterion system of specific accuracy in football. One significant canonical correlation of the mentioned systems was defined at level $p < .01$, which is presented by the size of the canonical correlation coefficient ($Can.R = .66$), which turned into a significant function amounts $P\text{-level} = .009$. The coefficient of determination ($Can.R^2 = .44$) explains the percentage connection between the two sets, so that the influence of the predictor on the criterion is 44%. In the case of correlation of the predictor and criterion system there is a general factor that significantly defines this area. The structure of canonical factor (Table 2) on the side of

motor abilities indicates that the definition of this factor is mostly affected by standing on one leg with eyes closed (SLEC -0.79), standing on one leg along the balance bench (SLB -0.70), envelope test (ET 0.54) and jumping over a horizontal rope (JHR -0.40). The structure of canonical factors on the side of specific accuracy in football suggests that significant influence was observed in the elevational accuracy by head - vertical target (EAHVT -0.93) and elevational accuracy by head - the horizontal target (EAHHT -0.55).

Table 2. Canonical factors

| | <i>Root 1</i> | | <i>Root 1</i> |
|---------|---------------|-------|---------------|
| JHR | -0.40 | EAFTV | -0.07 |
| ET | 0.54 | EAFTH | 0.24 |
| FIG.,8“ | -0.29 | LAFTV | -0.38 |
| FBSRT | -0.02 | HBFRS | -0.08 |
| SPLITS | 0.19 | EAHVT | -0.93 |
| SSWB | -0.06 | EAHHT | -0.55 |
| SLB | -0.70 | | |
| SLEC | -0.79 | | |
| FLAM | 0.11 | | |

Table 3. Regression analysis of observed spaces

| <i>Variables</i> | <i>EAFTV (p)</i> | <i>EAFTH (p)</i> | <i>LAFTV (p)</i> | <i>HBFRS (p)</i> | <i>EAHVT (p)</i> | <i>EAHHT (p)</i> |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| JHR | .002** | .030* | .016* | .627 | .658 | .231 |
| ET | .357 | .438 | .395 | .860 | .157 | .019* |
| FIG.,8“ | .666 | .314 | .263 | .364 | .156 | .698 |
| FBSRT | .251 | .579 | .991 | .040* | .959 | .829 |
| SPLITS | .032* | .292 | .634 | .692 | .469 | .233 |
| SSWB | .297 | .585 | .588 | .793 | .404 | .157 |
| SLB | .316 | .342 | .200 | .413 | .038* | .269 |
| SLEC | .251 | .738 | .654 | .470 | .005** | .016* |
| FLAM | .604 | .612 | .686 | .014* | .168 | .006** |
| <i>P-level</i> | .021* | .157 | .115 | .039* | .015* | .002** |

The results indicate a statistically significant effect of motoric abilities on elevational accuracy by foot - vertical target (EAFVT .021), the hits of ball by foot on the wall after it rebounds from the surface (HBFRS .039), elevational accuracy by head - vertical target (EAHVT .015) and elevational accuracy by head – horizontal target (EAHHT .002).

Individual level:

Jumping over a horizontal rope (JHR) significantly affects elevational accuracy by foot - vertical target (EAFVT .002), elevational accuracy by foot - horizontal target (EAFHT .030) and linear accuracy by foot - vertical target (LAFVT .016);

The envelope test (ET) significantly affects the elevational accuracy by head - horizontal target (EAHHT .019);

forward bend, standing upper-body rotation, touch (FBSRT) significantly affects the hits of ball by foot on the wall after it rebounds from the surface (HBFRS .040);

The splits (SPLITS) significantly affects elevational accuracy by foot - vertical target (EAFVT .032);

Standing on one leg along the balance bench (SLB) significantly affects elevational accuracy by head - vertical target (EAHVT .038).

Standing on one leg with eyes closed (SLEC) significantly affects elevational accuracy by head - vertical target (EAHVT .005) and elevational accuracy by head – horizontal target (EAHHT .016).

Flamingo test (FLAM) significantly affects the hits of ball by foot on the wall after it rebounds from the surface (HBFRS .014) and elevational accuracy by head – horizontal target (EAHHT .006).

4. DISCUSSION AND CONCLUSION

How many times have football matches which could be highly evaluated been played, but the only obstacle to these

high ratings was that there were no goals scored? A large number of football experts could be seen at one place performing a handful of in detail tactically elaborated actions but the ultimate goal of the football game was not achieved. Television commentators on this occasion usually say: "The nets stood still."

The beauty of football game without achieving its primary objective, the goal, is not complete. Regardless of all the moves that today's football idols of young generation show with ease, the final result is measured by the number of goals scored. No one remembers whether a team play better and nicer, whether statistical parameters were on its side or not, only the goals scored are to be remembered. Beautiful, less beautiful, attractive or not, achieved by accident or tactically created, it is important only to score more goals than the opponent. And to achieve this aim, each team must have an effective way of winning the ball, the successful organization of the offense, the opportunity of open shots and eventually scoring the goal with high efficiency (Luhtanen et al . 2001).

Organization of offense which results in shooting on goal, determines either the success or failure of a football team. The completion of each successful offense can be seen through the means of offensive tactic, and that is a shot on the goal. This aspect of football game is attached by utmost importance, both in training as well as in the very selection of forward players (Jankovic, 2006).

Goals scored, in previous research activities, were the largest identified component of performance in a football game. Analysis of goals and determination of the most appropriate strategy of attack, is the only precondition for quality and efficient competition in modern football (Acar et al., 2007) .

The top professional football requires accuracy of passing and kicking in both stronger as well as in weaker leg. Research of Nagasawa et al. (2011) at 20-years old

football players, shows the lack of difference in different types of shots and passing between stronger and weaker leg. This conclusion is a feature of any top player who needs technical knowledge to find solutions to each tactical situation. It is important within this context to point out that in real sport events high frequency of accuracy is substantially determined by range of technical and tactical knowledge (Švraka, 2003, Stone & Oliver, 2009) but also the level of preparedness of other physical parameters (endurance, strength, speed, coordination...), as an important segment for the development of successful football player (Rakocevic, 1996; Helgerud et al., 2001; Milenkovic et al., 2008; Milenkovic, 2010; Milenkovic, 2011).

As a conclusion of this study it can be stated on the basis of the presented results, that there is statistically significant correlation between motor abilities with the majority of parameters specific accuracy in football parameters with the tested group of young players.

It should be stated that statistical significance were observed both on multivariate and univariate levels of most tests of specific accuracy in football. This study rejoins the previous findings which indicate a large impact of motoric abilities on performance in football.

REFERENCES

- Acar, M., Yapıcıoğlu, B., Arıkan, N., Yalçın, S., Ateş, N. & Ergun, M. (2007). Analysis of goals scored in 2006 World Cup. In Feza Korkuzus & Emin Ergen (Eds). VIth world congress on science and football. Book of abstracts (pp 3-4). Antalya: *Journal of Sports Science and Medicine*.
- Dukić, B. (2000). Tehnički elementi u fudbalu. Beograd: *Borivoj Dukić*.
- Gabrijelić, M. (1982). Relacije situaciono motoričkih sposobnosti i rezultata u situaciono nogometnim testovima. Zagreb: *Fakultet fizičke kulture*.
- Helgerud, J., Engen, L.C., Wisloff, U. & Hoff, J. (2001). Aerobic endurance training improves soccer performance. *Med Sci Sports Exercise*, 33 (11), 1925-1931.
- Janković, A. (2006). Poslednja etapa razvoja svetskog fudbala između rezultata taktike ofanzive i defanzive. *Fudbal*, Beograd.
- Kurelić, N., Momirović, K., Stojanović, M., Radojević, Ž. i Viskiće-Štalec, N. (1975). Struktura i razvoj morfoloških i motoričkih dimenzija omladine. Beograd: *Institut za naučna istraživanja Fakulteta za fizičko vaspitanje* Univerziteta u Beogradu.
- Luhtanen, P., Belinskij, A., Häyrinen, M., Vääntinen, T. (2001). A comparative tournament analysis between EURO 1996 and 2000 in soccer. *International Journal of Performance Analysis in Sport*, 1(1), 74-82.
- Milenković, D. (2010). Endurance training in the pre-season period at football players. *Acta Kinesiológica*, 4 (2), 41-45.
- Milenković, D. (2011). Speed as an important component of football game. *Acta Kinesiológica*, 5 (1), 57-61.
- Milenković, D., Branković, N., Petković, M., Kostić, M. & Stanković, D. (2008). The connection between motor skills and situational-motor skills in soccer among elementary school children. *Fizička kultura, spisanje za naučni i stručni prašanja od fizičkata kultura (Skopje)*, 36 (1), 115-121.
- Nagasawa, Y., Demura, S., Matsuda, S., Uchida, Y. & Demura, T. (2011). Effect of Differences in Kicking Legs, Kick Directions, and Kick Skill on Kicking Accuracy in Soccer Players. *Journal of Quantitative Analysis in Sports*, 7 (4).
- Ničin, Đ. (2000). Antropomotorika (teorija). Novi Sad: *Fakultet fizičke kulture*.
- Rakočević, T. (1996). Efikasnost primene aktivnosti za razvoj repetitivne snage u manifestaciji situacione preciznosti početnika u fudbalu, *Doktorska disertacija*. Novi Sad: *Fakultet fizičke kulture*.
- Šošić, H. i Rađo, I. (1998). Mjerenje u kineziologiji. Sarajevo: *Fakultet za fizičku kulturu*.
- Stojiljković, S. (2003). Osnove opšte antropomotorike. Niš: *Studentski kulturni centar*.
- Stone, K.J. & Oliver, J.L. (2009). The effect of 45 minutes of soccer-specific exercise on the performance of soccer skills. *Int. J. Sports Physiol Perform*, 4 (2), 163-175.
- Švraka, N. (2003). Tehničko-taktički elementi kao faktor uspešnosti fudbalske igre u napadu, *X međunarodni skup FIS komunikacije 2003*, Niš: FFK.
- Weineck, J. (1999). Optimales fussballtraining. Nirberg: *Spitta-Veri*.

IMPLEMENTATION OF THE RESTITUTION IN THE CONTEMPORARY TEACHING PRACTICE IN THE REPUBLIC OF MACEDONIA

Dr. Svetlana Pandiloska Grncharovska, Study program in Pedagogy, Faculty of Philosophy, State University in Tetovo, Tetovo, Republic of Macedonia

E-mail: spandiloska@hotmail.com

Dr. Gordana Stankovska, Study program in Psychology, Faculty of Philosophy, State University in Tetovo, Tetovo, Republic of Macedonia

E-mail: gorstankovska@yahoo.com

Dr. Fadbi Osmani, Study program in Pedagogy, Faculty of Philosophy, State University in Tetovo, Tetovo, Republic of Macedonia

E-mail: fadbi.osmani@unite.edu.mk

Abstract: The discipline of students is a problem for which there are as many different approaches as theoretical concepts and legal regulation of these issues. It is too often based on procedures, which are used to prevent undesired behaviour. The dominance of such discipline treatment, which often puts the teacher in a position of a conductor and the student as an executor, perhaps is the simplest, but not the most proper way.

Viewed from this perspective the discipline should deny repressive and aggressive methods. This actually represents an attempt to overcome the historical understanding of the term pupils' discipline which carries an emphasized negative connotation. This does not mean removing of all rules, regulations and procedures, but an attempt to increase students' accountability and considering this fact since the nineties of the twentieth century, in the world intensively appear strings of pedagogical leadership models, which treat the issue of students' discipline. Stressing their extraordinary importance, we decided to study the pattern of restitution and the effects of its application in establishing school discipline.

Keywords: discipline, restitution, behaviour, students.

1. INTRODUCTION

The restitution is an idea whose time is present, even though it is not part of our ethical culture, where the greater attention is on the behavioral consequences, and the students are left with no opportunity to correct their mistakes. The restitution can never be achieved by using traditional discipline methods where the professor is presented as an authority.

The pedagogical practice analysis often claim the right that in the educational process we come across many serious difficulties or obstacles while establishing positive relations between the students and the professor.

In this case, the reasons can be found in both sides. For instance, among the reasons caused by the teacher, the following are listed:

a. Insufficient communication competence: lack of capability so establish contacts with the students, not being familiar with the methods of organized mutual relations with the students, lack of skills for studying, being introduced and understanding of the students' condition and relations.

b. Personal qualities: reticence, coyness, incommunicativeness, nervousness, negative attitude towards the profession, subjectivity in communication, alienation from the students and their behavior.

c. Lack of emotional stability.

Among the reasons caused by the students, the following are listed: lack of communicational need, not being disciplined, aggressiveness, low cultural level, lack of emotional stability, nervousness, fear, impulsiveness, low-level of intelligence, lack of knowledge, abilities, incapability to give evaluations and opinions, poor vocabulary as well as negative personality qualities, not being responsible, selfishness, unreal self-evaluation (overestimation, underestimation), (Hibš, G. & Forvert, M., 1996).

Each of these obstacles in a way makes more difficult and suppresses the mutual relations between the subjects in the educational process. As a result of that, conflict situations occur.

It is undeniable and confirmed on a daily basis that a successful educational job depends on the quality of the established relations among the subjects in the educational process. A successful relation cannot be built on mistrust and negative emotional attitudes. According to Bush, all the teachers cannot establish relations with all the students on the same way. The quality of the established relation depends on many factors: personal affection, mutual understanding, interests, attitudes, intelligence, social background and working methods (Bratanić, M., 1987).

When the students behavior is completely regulated by discipline requests, the teachers lose their meaning and the need to take care for the overall educational process and their job is reduced to processing planned lessons of their subject. In that case, the education of a whole person becomes someone else's problem which leads to losing of the integrality in the educational process.

The discipline model used in many schools relies on the delinquency and bad behavior, with which the student has no opportunity to learn to behave better.

The conception of restitution is an approach with which the teacher is allowed to redirect the student's behavior, while the student is helped in the evaluation of his/her abilities for compensating of the bad behavior consequences.

Actually, the restitution is a key for a constructive and more human approach in the students' educational process. For the one who made a mistake it gives an opportunity the same one to make the situation completely right, the best they can, instantly or in the nearest future.

The improvement of the techniques of pedagogical education of students in a class is needed in order to make a positive

ground for a restitution. That process includes the following steps:

a. Field opening

This means reducing the number of the interventions conducted by the teachers who are prone to use traditional discipline methods, constantly giving feedback and positive strengthening of students. Too much control of the students may produce blind obedience, where there is no chance for making good solutions based on right decisions or it may lead to student's inattention, meaning that in situation when the teacher's requests are of essential importance, the student will not listen anything.

b. The second step is reaching approval and agreement. It is necessary to obtain an agreement inside the class in the framework of the following three areas: between the teachers and students for their classroom roles, for the values respected by the group and for the rules based on those values. These agreements enable meeting the needs for freedom from one side and the need for belonging from the other one.

c. The third step is setting and maintaining the boundaries. This is based on the previously mentioned agreement on the students and teachers' roles. They make a mutual agreement for their behavior boundaries.

The restitution may refer to financial compensation, time or working activities compensation. It is important to compensate the harm made to the injured party.

How can we recognize if the restitution is being applied in conducting the process of students' discipline or not?

The answer to this question can be obtained if we are familiar with the restitution's features. They are:

- The injured student thinks it is an appropriate compensation
- It requires making an effort by the one correcting the mistake
- It does not motivate further mistakes.

- It is relevant for the overall area where the violation is made

- It is connected with the high values, attitudes and life

- It strengthens students' personality

The successful restitution is characterized also with avoiding some of the negative adults' behavior, such as: criticizing, accusing, irritation, feeling burdened, etc.

2. RESEARCH PROBLEM AND METHOD

Subject of this research is the restitution model and the effects on its appliance on the classroom discipline.

According to the complexity, the subject of research is being studied through the following components: applying of restitution, interpersonal relations among the subjects in the educational process before and after the appliance of the restitution, the way the teacher reacts on the problems appearing in the class, the most common mistakes made by the students as well as the consequences acquired by the restitution appliance on the students' personality.

To be more concrete, the research objective is to acquire qualitative awareness for the usage of the restitution model in the educational process as well as its effects on the school discipline.

The research objective is specified through several objectives:

- To examine the relation between the teacher and the students within the framework of the educational process before and after the restitution implementation.

- To assess if there are differences in the social – emotional climate in the class, before and after the restitution implementation.

- To become aware for the methods used by the teacher when the problems occur in the class.

- To assess the types of mistakes made by the students most often.

- To acquire qualitative data about the influence of the restitution on the students' personality.

The Studying of the problem is carried out by an empirical research from a descriptive character. It is a kind of an action, field and qualitative research. Because of the fact that qualitative research are characterized by studying the intensity of the phenomenon the sample being observed is consisted by one class, where 60 visits are realized in a period of one year.

The following quantitative techniques are applied as additional: sociometrical test used twice, first at the beginning of the research, aiming to get an inside in the socially emotional climate in the class and the second time at the end of the research, aiming to find out the effect of the usage of the restitution model. Also, the graphic evaluation scale is applied, for self-evaluation of the primary teacher's working, thus providing data for the level of success of the restitution application.

It is hypothesized that the restitution application as a model in the pedagogical realization of the educational process causes positive effects on the school discipline.

3. RESULTS AND A DISCUSSION

In a function of a better understanding, analysis and interpretation, we group the researching results in several categories:

The relation of the teacher towards the students

The situation that we came across at the beginning was an incarnation of the traditional discipline method. The teacher insisted on gaining the students favor by using the persuasive method, thus establishing control through long moralization and accusation. As a result of the absence

of an inside control, the students constantly needed support.

Using the restitution principles the teacher at first had to reduce the intervention number and by doing that he/she started to become free of part of the responsibilities. This kind of relationship enabled the students to start recognizing their own needs. They got bigger freedom of choice and an opportunity to learn based on their decisions.

As a result of the respect of the restitution principles the teacher started to emphasize more the students' success than their failure. Instead of manifesting power when a disobedient student had to do a given task, the teacher didn't react personally, but through his / her role. This led to avoiding many confrontations.

Also, characteristic was the avoidance of the rhetorical questions because they break the students' independence. By using these questions, the student might confirm the teacher's hypothesis, but the one won't take any responsibility.

Part of the students who hardly satisfied their need for power, gave sarcastic comments quite often. Instead of moralizing and punishment, the teacher started to reply with a humor or he pretended not to listen to them. The absence of negative emotions and threats from the teacher led to development of a mutual honesty and trust.

Following the restitution principles, the teacher offers the students support and encouragement. He was listening to them actively and was trying to see every situation from their point of view. The active listening contributed in avoiding the anger among the subjects in the educational process and it had a positive impact on the development of the patience. This kind of a relation enabled decision making without a pressure, which led in a responsibility development and changed the quality of life and classroom relations greatly.

The results gathered by the graphic scale for self-evaluation of the teacher confirm the following connotations.

Differences in the reaction of the teacher when the mistake occurs

Before we started to introduce the model of restitution, the reactions of the teacher were intensively observed when a problem occurred. The teacher usually involved directly in the situation through locating the guilty student and also by connoting a solution. Through criticizing, he was looking for a responsibility and persistence from the students and was constantly focused on the consequences, emphasizing the guilt and establishing an outside system of control over the students.

With the adoption of the restitution principles, the teacher accepted the fact that we cannot change what is already done, but only what follows. That resulted in moving the gravity from the problem towards the solution.

That is to say, when a problem occurred, the teacher tried to approach the students without any negative emotions and nonverbal phrases, without losing the privileges and without any freedom restrictions.

Aiming to establish collaboration with the students, the teacher approaches using one of the following phrases:

It is normal to make mistakes, but what will you do to fix it.

- It is good to say I am sorry, but what will you do to fix it.

- It is ok to make mistakes, you are not the only one.

- I know you didn't want to be so.

- I am not interested in your mistake, I am interested what will you do about it.

In the same time while he was trying to conciliate their cooperation, he explained that rectifying the error requires effort, time, and the impaired student should be satisfied with the result. Rectifying the error should be honest and the correction should be addressed to the same area as the error. He reminded the students of the previous successful solutions and

paid attention the solution of the error not to be too easy.

Considering the fact that the students met the concept restitution for the first time, at the beginning teacher's help was necessary. In order to achieve a full effect, it was necessary to indicate them in which direction should they seek the solution. Because the mistake was always connected with disrespecting the rules, the teacher was indirectly indicating the student that disobeyed the rules by asking the following questions: Which was the rule that you should have obeyed?, Can you do that?. In the same time, he was not insisting on verbal response, it was enough if the student gave an affirmative response, or just nods the head.

In this way it was contributed the rules slowly, but surely to become an integral part of the life in the classroom. The absence of negative emotions and threats, the shift of the focus on the success's side, which helps in avoiding moralizing, blaming, and displaying error led to the development of personal responsibility among students.

As a result of careful leadership by the teacher, the students were willing to solve the problems. The biggest difficulty was to make the solution to correspond to the error, meaning to be in the same area as the error.

Socio-emotional climate in the classroom

In this research, it was extremely important for us to see how the application of restitution affects the socio-emotional relations between the students.

The socio-emotional climate that we saw in the classroom could not be characterized as positive. Part of the reasons for that lie in the fact that the class had 20 boys and 11 girls.

It was obvious the grouping of the girls who openly avoided most of the boys. While talking with them and observing their reactions, it was especially character-

istic that they were avoiding the naughty students, those who tease and mistreat them, and those who were underachieving and talking during class. The boys who were accepted by the girls were characterized as excellent and peaceful students who do not fight, who are fair and assist them in learning.

The boys on the other hand, were "duty culprits" for every problem. As a result of that some of them felt rejected by the teacher, believing that the teacher is more inclined towards the girls. They were avoiding those girls who considered selfish and the ones who do not assist them in learning, but they also expressed their affection for those girls who are honest, exemplary and provide with the necessary assistance in learning.

In addition to these findings, there is a socio-metric test that was applied at the beginning of the research, before inducing the restitution.

Table 1.

| Socio-metric criteria | M | F | N | IGT | IGK |
|-----------------------|------|------|----|-------|-------|
| Mutual friendship | 0,06 | 0,27 | 31 | 5,516 | 2,719 |

The thing that is also concerning, is the small difference between the number of positive (232) and negative opinions (171).

The same test was applied at the end of the research whereby the following results were obtained

Table 2.

| Socio-metric criteria | M | F | N | IGT | IGK |
|-----------------------|------|------|----|-------|-------|
| Mutual friendship | 0,35 | 0,26 | 31 | 3,161 | 4,744 |

The total number of positive choices (425) significantly increased in the expense of the negative choices (98), which were significantly reduced.

Based upon the data obtained with t-test, it was tested the significance of the difference between the arithmetical means in small samples. The resulting value of $t=-3,2$.

According to the table N-1 degrees of freedom, the limit value of $t=2,75$ on the

significance level of 0,001. Because $p < 0,01$, the null hypothesis is rejected. The difference between the arithmetic means is statistically significant at significance level of 0.01

It was obvious the improvement of the communication between the students, and the respect for other opinions, which resulted with reduced prosecution and better collaboration between the students. This led to the development of friendship, cooperation, respect. All this improved the atmosphere in the class.

The differences in students` reaction when they make a mistake

Before the application of restitution, in a situation when a mistake is made, as characteristic we can point out two types of students` reaction.

In the first case, the students were reacting in the following way: they were confused, usually bent their head and rarely had the courage to respond the teacher's accusations. There were also cases when they were starting to cry.

In the second case, they were indifferent, absent and totally ignored the teacher's reaction, as it was not addressed to them at all.

These reactions were a result of the fact that the students didn't have the opportunity to participate in solving the problems and fixing the errors. Their attempt to influence the teacher's decisions resulted with new problems that disrupted the discipline in the class.

This attitude contributed the punishment to be seen by the students as the only solution and way out of the problems.

The induction of restitution led to the following reactions:

- The students precisely knew the problems that were occurring in the class,
- They knew the reasons why were the problems occurring,
- They knew when, in which period of the class and the day were usually oc-

curing these problems, and who causes them, but

- They did not know how to overcome those problems.

The changed attitude towards the correction of the mistakes, led the students to recognize the need for change in their own behaviour.

The practice of restitution led to changing the students` attitude towards mistakes. As a result, they were willing: to accept their mistakes, to correct the mistakes, to recognize the needs and assess the impact of their behaviour on others, which means to associate their behaviour with the consequences.

Strengthening students` personality

The application of restitution, was positively affecting the strengthening of students` personality. As a result of the cancellation of punishment, blame and coercion, the students began to turn over towards themselves, which was the basic prerequisite for behavioural change. The absence of negative emotions motivated them to assert themselves.

They were ready clearly, and without fear to express their opinions.

Also, the students were ready to admit that they were trying in different ways to escape from the problematic situation.

The thing that is very significant in this situation is the courage that the students had to oppose the teacher's opinion.

The possibility that the students had, to participate in fixing the errors and redressing the damages, strengthen their self-confidence. As a result of their direct involvement in the situation and the respect of their suggestions, they felt free to express their opinion.

Putting them in a position to correct their mistakes, allowed them to evaluate their current behaviour and decide for its change. This was especially effective for those students who approach the teacher

silently or responded with ``no`` and ``I don't know``. Active cooperation with these students was achieved by asking them the following questions: What do you like in what you did?, What was easy?, What was difficult?, How did you perform it?

The application of restitution is a creative work. Neither the teacher nor the students are always clear what should be done, but they should constantly bear in mind the realization of the objectives that should be achieved with it. They are: strengthening the student who made a mistake and satisfying the impaired student.

In this way, the class becomes a place where students can supply their needs.

4. CONCLUSIONS

The results of the empirical research indicated the possibilities the restitution offers. The usage of the restitution, as a contemporary model of pedagogical leadership, means requiring from the students to establish intellectual and moral qualities, strong will and readiness for action. That means that students should establish:

- Skills to use the acquired knowledge and experience, and their expansion or enhancement while assessing their own options for compensation the damage caused by their bad behaviour.

- Problem solving interests.
- Striving to achieve mutually acceptable solutions.

- Thinking and attention development.

- Habits to appreciate, to cherish and respect the opinions of the others, which refines the feelings and strengthens their will.

For realization of this model, it is necessary to implement it:

- According to a plan and long – term.

- Unobtrusively, in order students to receive it as an internal self-belief.

- To be a result of a personal example of the teacher and his humane qualities.

REFERENCES

- Angeloska-Galevska, N. (1998). Kvalitativni istraživanja vo vospitanieto i obrazovanieto, *Kiro Dandaro*. Bitola
- Bratanić, M. (1987). Vaspitanje i obrazovanje, *Grafički zavod*. Titograd
- Chelsom - Gossen, D. (1994). Restitucija - Preobrazba školske discipline, *Alinea*. Zagreb
- Dimitrov, L. & Černeš, S. & Atanasov, Ž. & Biškov, G. (1994). Teorija na vospitanieto, *Askoni-izdat*. Sofija
- Gordon, T. (1998). Teacher Effectiveness Training, *Crown Publishing Group*. New York
- Graor, Ž. (1998). Manipulisanje ljudima i vaspitanje, *Grafikom*. Novi Beograd
- Hibš, G. & Forvert, M. (1996). Obštuvaniето pri vospitatelniot proces, *Veda Slovena*. Sofija
- Jurić, V. (1993). Školska i razredno nastavna klima, *Znamen*. Zagreb
- Nelsen, J. (2001). Pozitivna disciplina, *Inter Gradex Trade*. Čačak
- Razdevšek-Pučko, C. (2004). Kakvog učitelja/nastavnika treba škola danas i sutra, *Pedagoški fakultet Sveučilišta u Ljubljani*. Ljubljana
- Trnavac, N. (1996). Fragmenti o disciplini učenika, *Institut za pedagogiju i andragogiju Filozofskog fakulteta Univerziteta u Beogradu*. Beograd
- Štajner, R. (2002). Osnovne duhovno - duševne snage umetnosti vaspitanja, *Atelje Forsa*. Zrenjanin
- Wolfendale, Sh. & Bastiani, J. (2000). The Contribution of Parents to School Effectiveness, *David Fulton Publishers*. London
- Wood, G. (1992). Schools that work: America's most innovative public education, *Penguin Books*. New York

INTERCONNECTION AND INTERACTION OF INTERROGATIVE SENTENCES IN THE ENGLISH LANGUAGE

Dr. Sklyarova Natalia, Professor, the Department of the Theory and Practice of the English Language, the Southern Federal University, Rostov-on-Don, Russia

E-mail panochka@bk.ru

Abstract: This paper presents the results of research devoted to one of significant aspects of interrogative sentences. The precise definitions of interconnection and interaction and the application of these terms to the language units helped to distinguish between interconnection and interaction of interrogative sentences in English. The existence of two different kinds of relations in the language, namely paradigmatic and syntagmatic, provided the basis for singling out two corresponding forms of interaction of English interrogative sentences. Contextual and distributional analyses of the material from authentic sources enabled to characterize the range and degree of their paradigmatic and syntagmatic interaction.

Key words: interrogative sentence, interconnection, paradigmatic interaction, syntagmatic interaction, form, range and degree of interaction.

1. INTRODUCTION

The elements in the objective reality as well as the thoughts about them in the human consciousness exist in interaction (Kondakov, 1975, 87) which is reflected in the language system where categories and elements interact with each other and make up complex language units.

The terms “interaction”, “interconnection” and “interrelation” are often confused. According to the definition, the essence of relation consists in the dependence of one thing on the other *without their direct contact*. In this respect relation differs from connection which is defined as the *direct* dependence of one thing on another (Sviderskij, 1983 22). Consequently, interrelation can be described as mutual dependence of several objects without their direct contact, whereas interconnection is mutual dependence of several directly contacting objects.

Interrelation and interconnection differ from interaction as they do not lead to the alteration of interrelated or interconnected objects and do not produce some new substance while interaction may cause changes and bring about the appearance of something new.

Interrogative sentences are characterized as syntactic units which serve to express questions. In logic a question is understood as the form of thinking which contains certain information and at the same time points at its insufficiency and aims at getting new information (Getmanova, 1986, 24). Due to the common semantic characteristics which consist in indicating the lack of knowledge and conveying the intention to receive the necessary information interrogative sentences are united into a microsystem of the language (Curikova, 1992, 9). They also possess a number of differentiating features connected with the anticipated answers which affect the structure of interrogative sentences. In special questions the expected answer is determined by an interrogative pronoun or adverb which implies unlimited number of possible variants. In the alternative question the potential answer is restricted by explicit variants. In the general question the answer can be either positive or negative. One of these variants is verbalized and the other is implied, but perceived by the interlocutors as contrary to the explicit one (Sklyarova, 2006, 214).

The objective of this article is to consider interrogative sentences of the English language in the framework of interconnection and interaction.

2. MATERIALS AND METHODS

The research is based on the extensive material from authentic sources, in particular, fiction books of English-speaking authors, such as C. Ahern, M. Atwood, J. Austen, H. Cecil, A. Christie, P.D. Cornwell, A.C. Doyle, A.M. Greely, L. Irvine, A. Perry, T. Ross and S. Sheldon. The tasks of the study are:

- distinguishing between interconnection and interaction of English interrogative sentences;

- singling out different forms of interaction of English interrogative sentences;

- determining various cases of paradigmatic interaction of English interrogative sentences;

- finding out the peculiarities of syntagmatic interaction of English interrogative sentences.

The methods applied in this study are selected in accordance with the objective and tasks of research. The differentiation of interconnection and interaction of interrogative sentences is based on the philosophical definitions of both phenomena, whereas two forms of their interaction correspond to two types of relations in the language, namely, paradigmatic and syntagmatic. Interrogative sentences of the English language are investigated in their contextual environment with the help of distributional method of analysis in order to single out different cases of their paradigmatic interaction and the peculiarities of syntagmatic interaction which display the range and degree of both forms of interaction. To demonstrate interconnection of the main types of questions in the English language the method of transformation is used.

3. RESULTS AND DISCUSSIONS

The interconnection of interrogative sentences can be explained from the point of view of logic. If the number of possible

answers to the special question is limited by the situation it can be easily transformed into the alternative question which in its turn can be converted into several general questions. If it is unlikely to enumerate all potential answers to the special question it can be transformed into the alternative question where anticipated answers are not exhaustive but are enough to fill in the gap in knowledge (Zuev, 1961, 125-126). It can be proved by the following example: *How many windows are there in the back of the house? (P.D. Cornwell, Body of Evidence)*. To transform this special question into the alternative one there is no need to enumerate all numbers. But taking into account the size of the house, the quantity of stores and other extra linguistic factors which make up the presupposition of this question one may state that the possible number of windows is no less than four and no more than six. So the corresponding alternative question will be: *Are there four, five or six windows in the back of the house?* It may be further converted into the subsequent general questions: *Are there four windows in the back of the house? Are there five windows in the back of the house? Are there six windows in the back of the house?* This logical transformation of interrogative sentences is hypothetical; it does not lead to the appearance of different types of questions in real speech which makes interconnection of interrogative sentences different from interaction.

Interaction of interrogative sentences can be characterized with the help of such parameters singled out by E.V. Murugova, as the form of interaction, the range of interaction and the degree of interaction (Murugova, 2007, 76).

Interrogative sentences in the English language display two forms of interaction, termed as paradigmatic and syntagmatic which are determined by the existence of two corresponding types of relations. Paradigmatic relations make up the structure of language system and syntagmatic relations unite language units in speech. Paradig-

matic interaction causes the appearance of mixed types of questions. Due to syntagmatic interaction interrogative sentences are able to be realized in sequences in connected speech. The result of paradigmatic interaction is the formation of one interrogative sentence, whereas the result of syntagmatic interaction is the complex of interrogative sentences.

There are several cases of paradigmatic interaction of interrogative sentences.

Firstly, paradigmatic interaction of interrogative sentences is observed in the syntactic units where one of the expected answers to the alternative question is expressed indefinitely with the help of an interrogative pronoun or adverb, thus widening the range of potential answers:

*Have we here a coincidence, **or what**?* (A. Christie, *Murder on the Orient Express*).

Secondly, the questions beginning with the word combination *which of* should be also referred to the cases of paradigmatic interaction of interrogative sentences. Such syntactic constructions have the form of special questions, but their contents are closer to the alternative ones as the number of possible answers here is restricted by the situation:

***Which of** these are likely to be carpet versus garment fibers?* (P.D. Cornwell, *Body of Evidence*).

Thirdly, paradigmatic interaction of interrogative sentences can be traced in the syntactic structures which have the form of alternative questions, but the semantic peculiarities of anticipated answers make them closer to general questions. The mixed character of such interrogative sentences can be explained by the fact that to answer them one should choose not between an affirmation and negation, but between two possible variants which are contrary to each other, like affirmation and negation. The possible answers represent the pairs of language units the contradictory meaning of which is determined by the lexical means with negative meaning

marking one of them. One of the antonyms may also be partially implicit:

*George Elephant, are you **guilty or not guilty**?* (H. Cecil, *The Name*).

***Was it murder or wasn't it**?* (A. Christie, *Appointment with Death*).

***Will the Prime Minister reappear or will he not**?* (A. Christie, *The Kidnapped Prime Minister*).

In the interrogative sentences where the possible answers are represented by antonyms with the contradictory meanings of root or affix morphemes such interaction is revealed weaker:

*You grew up **rich or poor**, Anna Maude?* (T. Ross, *Briarpatch*).

*Is your answer **partial or impartial**?* (A.M. Greely, *The Bishop and the Missing Ltrain*).

Finally, paradigmatic interaction can be exemplified by the situations when general questions are used instead of special:

"She has been with you long?"

"Nearly a year" (A. Christie, *The Nemean Lion*).

Such cases are characterized by linguists as the discrepancy between the form of the sentence and its communicative goal (Bulygina, T.V., Shmelev, 1992, 110), because the character of expected answer does not correspond to the type of question.

Indirect questions with the interrogative introductory part can be treated as the product of both paradigmatic and syntagmatic interaction because they consist of the succession of two questions in one sentence, but the speaker's intention is not to find out *whether* the listener knows (remembers, thinks, etc.) or does not know (remember, think, etc) something, but to find *what* he or she knows (remembers, thinks, etc.) about certain situation. Thus, in the focus of communication is the second question, while the first question loses its interrogative function and plays just a subsidiary role:

***Do you remember what** she was wearing that day?* (P.D. Cornwell, *Body of Evidence*).

Do you know, for certain, Mr.Monk, whether he is alive or dead? (A. Perry, *Cain His Brother*).

Do you know if Mrs. Burton-Cox was a friend of your family, of your mother and father? (A. Christie, *Elephants Can Remember*).

Purely syntagmatic interaction of interrogative sentences can be observed in the cases when the number of possible answers to the special question is limited by the following alternative question:

Who keeps changing the rules, them or us? (M. Atwood, *Bodily Harm*).

Though such examples are regarded as mixed questions (Wunderlich, 1980, 141), we share the opinion that they can be treated as a combination of two sentences (Korol'kova, 1981, 13). Such combination is possible due to the ability of alternative questions to follow special ones, narrowing the variety of potential answers (Palmer, Blandford, 1969, 302). Moreover, unlike mixed and indirect questions such sentences can be split in two separate syntactic units, which proves that this is a complex of questions, the result of syntagmatic rather than paradigmatic interaction of interrogative sentences.

But the cases of syntagmatic interaction of interrogative sentences are not confined only to the combination of special and alternative questions. On the contrary, they are much more numerous and varied. In speech one can run across the cases when interrogative sentences of different types follow one another making up the chains of questions:

Why should he take the horse out of the stable? If he wished to injure it why could he not do it there? Has a duplicate key been found in his possession? What chemist sold him the powdered opium? Above all, where could he, a stranger to the district, hide a horse, and such a horse as this? What is his own explanation as to the paper which he wished the maid to give to the stable-boy? (A.C. Doyle, *Memoirs of Sherlock Holmes*).

Such textual units are named complexes of questions. They were thoroughly investigated in Russian (Mel'kumjanc, 1997), German (Vlasenko, 1986; Han, 1985), and partially in English (Skljarova, 2006). A complex of questions is completed from the point of view of its contents and intonation. It is believed to have a sole interrogative communicative goal (Han, 1985, 135), and a so called "uniting semantic component" (Mel'kumjanc, 1997, 7). But the results of our research show that a complex of questions can fulfill communicative tasks different from getting information. Besides the sentences which comprise it may not have some common idea. Thus, in the following example there is a complex consisting of rhetorical questions which in fact contain statements rather than inquiries but express them more emotionally:

"What the hell did they teach you in medical school? Don't you even know the difference between heartburn and a heart attack?" (S. Sheldon, *Nothing Lasts Forever*). → **They didn't teach you anything in medical school. You don't know the difference between heartburn and a heart attack.**

In the other example the first and second constituent elements in the complex of interrogative sentences are aimed at restoring the contact with the interlocutor and only the third constituent element is a pure question:

"Excuse me? Am I talking to myself? I asked you if it was OK if I go in and tell my friends that we had to leave?"(C. Ahern, *PS, I Love You*).

Taking into account the above mentioned facts, we share the opinion of L.P. Vlasenko who treats a complex of questions as a number of interrogative sentences following one another and connected through intonation, structure or meaning (Vlasenko, 1986, 111).

According to the opinion of V.A. Mel'kumjanc based on the results of his research, the constituent elements of the complex of questions in Russian may represent separate sentences, parts of a com-

posite sentence and homogeneous members in a simple sentence (Mel'kumjanc, 1997, 5).

The analysis of complexes of questions in the English language shows that they can be found on the textual level, as well as on the level of a composite and simple sentences. In a simple sentence a complex of questions is the result of the compression of a composite sentence where similar elements are omitted:

And what sort of young lady is she? Is she handsome? (J. Austen, *Pride and Prejudice*).

Which one was it, or did you have them both? (L. Irvine, *Castaway*).

How did it happen and where? (P.D. Cornwell, *Body of Evidence*). → *How did it happen and where did it happen?*

But complexes of questions can be found in the text oftener than in the sentence. The number and possible combinations of questions in the text are greater than those in the sentence due to relative independence, self-sufficiency of separate sentences and the completeness of the idea expressed by them.

Thus, in the following example the complex of interrogative sentences consists of ten constituent elements. This number includes all syntactic units marked by interrogative punctuation. Elliptical and detached constructions are treated as separate components:

Was it dropped by Colonel Arbuthnot? Or by someone else? Who wore the scarlet kimono? Who was the man or woman masquerading in Wagon Lit uniform? Why do the hands of the watch point to 1.15? Was the murder committed at that time? Was it earlier? Was it later? Can we be sure that Ratchett was stabbed by more than one person? What other explanation of his wounds can there be? (A. Christie, *Murder on the Orient Express*).

In complexes of questions consisting of two elements all types of interrogative sentences of the English language can be combined whereas in multi-element complexes the number of such combinations

increases. Thus, in the next example the complex of interrogative sentences includes a special question, a general question, an alternative question and a disjunctive question:

Which of them is it? The egregious Greg? The quiet Edward Hillingdon or my fellow Jackson? It's got to be one of the three, hasn't it? (A. Christie, *Caribbean Mystery*).

Besides, interrogative sentences in the complex of questions may immediately follow each other or be in remote contact, in the latter case they are separated by the author's words or by the sentences of other communicative types, such as declarative or exclamatory. Their presence does not destroy the unity and integrity of the complex the constituent elements of which are strongly connected by intonation, structure or meaning:

"What do you think of this sentence, my dear Lizzy?" said Jane as she finished it. "Is it not clear enough?" (J. Austen, *Pride and Prejudice*).

Oh, was that what it was this month? I was just dying to know. So how did it go? (C. Ahern, *PS, I Love You*).

And is such a girl to be my nephew's sister? Is her husband, is the son of his late father's steward, to be his brother? Heaven and earth! – of what are you thinking? Are the shades of Pemberley to be thus polluted? (J. Austen, *Pride and Prejudice*).

Thus, interaction of interrogative sentences brings about definite changes, in case of paradigmatic interaction mixed types of questions appear, syntagmatic interaction leads to the appearance of larger language units.

The degree of paradigmatic interaction of interrogative sentences is greater than the degree of their syntagmatic interaction which is determined by stronger structural and semantic unity of mixed types of questions in comparison with interrogative complexes. At the same type the range of syntagmatic interaction of interrogative sentences is wider than the

range of their paradigmatic interaction because the combinations of questions which can make up a complex are more varied than those which can produce mixed types of questions.

4. CONCLUSION

Interaction, interconnection and interrelation are close but different phenomena which have their own peculiarities. Interconnection of interrogative sentences is explained by the laws of logic. Interaction of interrogative sentences in the English language has paradigmatic and syntagmatic forms. Paradigmatic interaction of interrogative sentences leads to the appearance of their mixed types. Syntagmatic interaction of interrogative sentences leads to their successive combinations in speech. The constituent elements of the resulting complexes of questions represent different types of interrogative sentences in various sequences and number. Their unity and integrity are achieved by intonation, structure or meaning. The degree and range of paradigmatic interaction of interrogative sentences differ considerably from those of syntagmatic interaction.

REFERENCE

- Bulygina, T. V., Shmelev, A. D (1992). Communicative Modality, *Human Factor in the Language*, Ed. by T.V. Bulygina. - Moscow: Nauka. - P. 110–137.
- Curikova, L. V. (1992). *Questions and Pragmatic Range of Interrogative Sentences*: Abstract thesis of PhD. – Voronezh. - 23 p.
- Getmanova, A. D. (1986). *Logic*. - Moscow: Vysshaja shkola. - 288 p.
- Han, G. V. (1985). *Disjunctive Semantics of Interrogative Complexes // Functional-semantic Analysis of Language Units*. – Alma-Ata: Kazakh University. - P. 134-141.
- Kondakov, N. I. (1975). *Reference Dictionary of Logic Terms*. 2nd ed. – Moscow: Nauka. - 720 p.
- Korol'kova, I. A. (1981). *Semantic and Syntactic Features of English Interrogative Sentences*: Abstract thesis of PhD, Moscow. – 14 p.
- Mel'kumjanc, V. A. (1997). *Multi-component Questions Expressed by Interrogative Sentences with Interrogative Pronouns in Modern Russian*: Abstract thesis of PhD, Taganrog. – 23 p.
- Murugova, E. V. (2007). *Interaction of Parts of Speech in the Process of Word-building*. – Rostov-on-Don, North Caucasian Centre of Postgraduate Education. - 460 p.
- Palmer, H., Blandford, F.G. (1969). *A Grammar of Spoken English*. - Cambridge: W. Heffer and Sons Ltd. - 341 p.
- Sklyarova, N. G. (2006). *Alternativeness as Language Universal*: Thesis of PhD, Rostov-on-Don. - 436 p.
- Sviderskij, V. I. (1983). *The Dialectics of Relations*. – Leningrad: Leningrad State University. - 137 p.
- Vlasenko, L. P. (1986). *Multi-component Questions Expressed by Interrogative Sentences with Interrogative Words, Problems of Syntax and Style in Modern German*. - Pjatigorsk: Pjatigorsk State Institute of Foreign Languages. - P. 110-117.
- Wunderlich, D. (1980). *Questions about Questions, Crossing the Boundaries in Linguistics*, Ed. by W. Klein, W.L. Levelt. Dordrecht: Reidel Publishing Company. - Vol. 13. - P. 131–158.
- Zuev, Ju. I. (1961). *Logical Interpretation of Questions, Articles on Logic and Grammar*. Moscow: Vysshaja shkola. - P. 97–133.

INTERCULTURAL EDUCATION: ANALYSIS OF THE PRIMARY SCHOOL TEXTBOOKS IN THE REPUBLIC OF MACEDONIA

Dr. Elena Achkovska-Leshkovska, Institute of Psychology, Faculty of Philosophy,
Ss Cyril and Methodius University –Skopje, Republic of Macedonia

E-mail: eleskovska@yahoo.com

Dr. Vladimir Davchev, Institute of Gender Studies, Faculty of Philosophy,
Ss Cyril and Methodius University –Skopje, Republic of Macedonia

E-mail: vladimir@fzf.ukim.edu.mk

Abstract: The intercultural education is most explicitly accomplished through textbook contents which encourage interaction, exchange, desegregation, interdependency and solidarity among people belonging to different cultural groups living in the same territory. The main goal of the research was to determine the quantity and quality of content that point to intercultural education in the textbooks used in elementary schools in the Republic of Macedonia, where the medium of teaching is in Macedonian. The analysis includes 44 textbooks. The research involved both quantitative and qualitative research methods, the latter involved using deductive defining of categories. Nine categories, important for intercultural education were distinguished: identity, cooperation and friendship, respect, tolerance, cultural relativism, stereotype, prejudice, oppression and labeling. The results showed that the highest percent of contents promoting intercultural is found in textbooks for Civic education and History, while the lowest one in Nature and Geography. From the analyzed categories, identity is highly present, followed by cooperation, friendship and respect of the other. Themes regarding the categories such as: stereotype, prejudice, labeling and oppression are least represented and are not even mentioned as negative examples of behaviors which are not to be practiced. As a conclusion, we can say that it is very positive that depreciation and discrimination of other cultures, ethnicities or religious groups are not present. However, there is demand and need to enrich TEXTBOOKS and syllabuses with large number of contents concerning above mentioned positive categories, in order to PROMOTE one set of VALUES which are essential to build an intercultural society.

Keywords: intercultural education, primary education, textbooks analysis, Republic of Macedonia.

1. INTRODUCTION

Globalization, the process of European unification, migration, the increase of professional mobility in Europe, cultural

exchange over the Internet and the continuous presence of different cultural lifestyles, do not only affect traditional concepts such as cultural and national identity, state or autonomy, but they also raise the question regarding cultural diversity in the modern society. Despite segregation and differences, the democratic model of approaching differences is one of the foundations of the right to having differences and equal participation of all entities within the society.

The colloquial language does not always show clearly the difference between the terms “multiculture” and “interculture”, which refer to a mutual coexistence of entities from different ethnic backgrounds. *Multiculture* refers to a natural state of a diversified society i.e. a society that is multilingual, multiethnic, multiconfessional, etc. Such society shows a comparative dimension i.e. a parallel coexistence of different entities that are recognizable as such within the society (Birzea, C., 2004). A multicultural society includes cohabitation of several ethnic groups that maintain their cultural differences and express their specific cultural identities. Within such society, the interaction among the groups is not of utmost importance. Being different or belonging to a different ethnic group is sometimes considered to be a negative trait and as such might be a reason for discrimination; minorities are treated in a passive way, and sometimes might not be recognized or respected (Gherga, E., 2007). On the other hand, *interculture* is a dynamic process that involves establishing and building relations among different ethnic

groups. The term is usually defined as “existence and interaction of different cultures, with the possibility of sharing different cultural aspects of the ethnicity through dialogue and mutual respect” (*UNESCO Guidelines on Intercultural Education* (2006)). This means that intercultural involves interaction, exchange, desegregation, reciprocity, interdependence and solidarity. An intercultural society is a society in which different cultures and ethnic groups live in the same area, have mutual relations, exchange ideas and recognize each other by respecting each other's values and lifestyle. Such notion leads to preserving and developing each specific cultural identity and intercultural communication. The concept of coexistence within an intercultural society is not something that is obvious. Therefore, the Council of Europe defines intercultural education as a concept which involves ‘to learn how to coexist together’ (Batelaan, P., 2004).

The Council of Europe adopted the strategy of multiculturalism and multicultural pedagogy in the 1970s. As Portera highlighted “In 1970, the Conference of Ministers passed its first resolution (no. 35), focusing on the entry age of migrant worker children into schools of the member states. A so-called ‘double track strategy’ was established to promote both the integration of these children within host country schools and also maintain cultural and linguistic links to the country of origin, so as to facilitate possible school reintegration.” (Portera, A., 2008).

On a Council of Europe's request, and with the purpose of reconstructing the European educational systems (of EU countries) and promoting intercultural education, three main aims were determined:

a) At a competency and skills level, the educational system should develop communication skills, stimulate and establish relations between the man and the community, while at the same time, indicate the importance of the critical view on the separate identities (religious, national, ethnical) and their relativization in relation

to the universal (human rights and dignity) and their specific historical development.

b) At a knowledge-transfer level, the importance of diminishing the ethnocentricity, the critical view on prejudices and the recognition of different civilizations and cultures are especially recognized. Primarily, this group contains subjects such as history and geography, as well as other social sciences and humanities and subjects connected to the understanding of culture, socialization processes and political and ideological consequences of the power differences between cultures

c) At an educational and cultural models level, the Council of Europe experts express the importance of cooperation of all educational sources (school, parents, local community, media, higher education), suggesting a coherent policy in the boundaries of economic, political and social factors which will enable equal opportunities both for the individual and the cultural communities.

Republic of Macedonia, as a multi-ethnic and multiconfessional country, with clear objectives of becoming a fully recognized EU member, needs to adjust and align the educational system in terms of intercultural education. Content, topic and activities promoting and implementing intercultural education need to be included in the creation and modelling of educational policies. As already mentioned, there is no clearly defined educational discipline or a separate subject, such as Intercultural education, and EU countries apply different modalities in the implementation of intercultural education. The efficacy of the educational system will be impaired by additional burdening on the wide-ranging primary and secondary curriculum's. For this reason, interculturality should be incorporated in the already existing subjects and teaching methods in the education system of Republic of Macedonia. "Intercultural education happens naturally through the ‘hidden curriculum’ of the social and visual world within which the child lives." (*Intercultural Education in the Primary*

School, 2005). In addition, preparing textbooks and workbooks which will incorporate a higher number of topics and themes, clearly expressing the basic interculturality principles is of high and principal importance. Without a doubt, the choice of these textbooks and workbooks in terms of quality, content, illustrations and knowledge-transfer methods will have an enormous role in students' perceptions of the world and the society they live in. Research demonstrates that words and illustrations in textbooks do not simply express certain ideas and facts, but are strongly influencing students' formation of opinions. For example, the manner of representing minority groups in a textbook (by words or illustrations) has an enormous influence on the formation of opinions and values for those minority groups (with the people who do not belong to those minority groups). If textbooks contain less negative examples and more positive examples with a clear purpose of building an intercultural/multicultural society and express the basic principles of interculturality, the conditions for forming positive opinions and behaviors towards the others are met.

Taking into account the current situation in the Republic of Macedonia, the purpose of this research was to analyze elementary school textbooks in order to see how much of the content relates to intercultural education.

The main goal of the research is to determine the quantity and quality of content (themes, terms, illustrations, symbols, etc.) that point to intercultural education in the textbooks used in elementary schools in the Republic of Macedonia, where the medium of teaching is in Macedonian. The research also involved these objectives:

1. to make a comparison between textbooks for different subjects in order to see how much of the content is related to interculture;

2. to do a detailed analysis of content related to interculture in textbooks used for the same subject, but for a different age group (different grades);

3. to make a comparison between different textbooks for the same subjects that are meant to be used for the same grade in order to see how much of the content is related to interculture.

2. MATERIALS AND METHODS

The research involved analyzing 44 textbooks used in elementary education, written according to the curricula from first to eight grades, as well as textbooks written in compliance with the new curriculum that involves a nine-grade elementary school education. Types of textbooks that were analysed involved textbooks that contain themes relating to understanding society and its structure, national and cultural identity, understanding yourself and others, intercultural interaction and developing critical thinking skills regarding these issues. The sample that was analysed involved: 15 textbooks used in *Macedonian language and literature* subject, 3 reading manuals (in Macedonian), 1 grammar book (for *Macedonian language*), 3 textbooks for the subject *My environment/society*, 3 textbooks for *Learning about the environment/society*, 1 textbook about the society, 1 textbook about natural sciences, 3 textbooks about civil society and culture, 6 geography textbooks and 7 history textbooks.

The study involved both quantitative and qualitative research methods. The qualitative analysis was based on deductive defining of categories (Кениг, Н., 2008). Taking the terms multicultural and intercultural as a basis of this research, 9 categories for analysis were identified. The purpose of this method was to examine explicit or implicit presence of these terms. This was done by reading the texts and analyzing the illustrations in each textbook. The nine categories used in this research are explained below:

1. IDENTITY is a set of characteristics that makes someone recognizable. Ba-

sically, this refers to the image that someone has about himself/herself.

Personal identity refers to characteristics related to one person only. This identity involves several specific characteristics which have been determined or stem from the culture or the society this person belongs to.

Social/cultural identity is identity that has been formed under the influence of the group/ the society/ the culture someone belongs to (aspects of tradition, history, customs, national and religious identity, social role, etc.)

2. COOPERATION AND SOCIAL-ISING involves social interaction between two or among several people in order to have fun, enjoyment, mutual work, mutual help and alliance. In a multicultural society this shows integration and coexistence of different cultures and ethnicities.

3. RESPECT refers to showing care and having positive feelings and respect towards others without having violent or negative feelings. In a multicultural/intercultural societies, this can be seen through a behavior that is one level higher than just simply tolerating the fact that other people are different.

4. TOLERANCE means the ability to accept other people's ideas, opinions, standpoints and actions and to show understanding and patience towards those who are different from us in some respect.

5. CULTURAL RELATIVISM relates to the notion that there is no unique true code of behavior, but that the ethnic behavior has been determined by the cultural context. As a result, the values and the norms of a specific culture cannot be taken as a basis for evaluating other cultures.

6. A STEREOTYPE is a simplified generalization of the characteristics of different groups in the society (categorized according to race, ethnicity, gender, profession, etc.) based without having enough information and without critical thinking. This usually has offensive connotation.

7. PREJUDICE is a constant, strong,

baseless attitude towards a particular group of people, objects or situations. This is an attitude towards the others, which is based on incomplete information or partially true, but twisted information about reality.

8. OPPRESSION involves systematic devaluation of a group of people that leads to their discrimination and marginalization.

9. LABELING refers assigning certain positive or negative, true or false characteristics to individuals or groups which have a great effect upon the identity of the labeled person and upon the relationship/s that other people have towards him/her/them.

The first five categories (1-5) have a positive connotation i.e. it is preferable that they are implemented because they lead to students understanding their meaning and manifesting such behaviors in their everyday lives. The other four categories (6-9) have a negative connotation. This means that students need to learn not to accept the standpoints and the behaviors described in these categories. However, students need to be aware of these behaviors so that they can recognize them in real life, try to avoid their manifestation or to point to others about the negative aspects of such behaviors in case they notice them being manifested in others.

3. RESULTS AND DISCUSSION

Considering that displaying all results from analysis of the textbooks by frequencies and percentages exceeds the limits of this report, we will focus only on the general findings regarding the main objectives of the study. First, based on the analysis, the highest percentage of themes that involve intercultural was found in the textbooks related to the subject *Civil society and culture* (62.67%) and *History* (57.39%). The lowest percentage was found in the textbooks related to *Natural science* (0%) and *Geography* (3.82%). Re-

garding the categories that were analyzed, the highest percentage relates to the category IDENTITY, which means that the national identity i.e. the identity of ethnic Macedonians is the one that the textbooks pay the most attention to. Some textbooks have made the effort to promote the identity of other ethnicities that live in the Republic of Macedonia, especially with regard to the ethnic Albanians (this is especially true for the History textbooks for 7th and 8th grade). In general, most textbooks lack themes that promote social interaction among members of different cultures and ethnicities explicitly. There are themes that refer to COOPERATION, SOCIALISING, HELP AND RESPECT towards other people, but the illustrations and the words used in the textbooks do not show that these people belong to different ethnic or religious groups. Only a small number of themes explicitly point to the need for co-existence, equality, tolerance and respect no matter what the differences are. Hence, it can be concluded that the textbooks imply multicultural more rather than intercultural. Themes such as STEREOTYPE, PREJUDICE, LABELING and OPPRESSION are themes with the least percentage in the textbooks. One of the good aspects of the textbooks is the fact that the textbooks do not contain disrespect and discrimination of different cultures, ethnicities or religious groups. However, it would be advisable if the textbooks were to have themes that deal with such negative social aspects which are part of a society that involves coexistence of different ethnicities so that students can recognize them and refrain from them.

The comparison among textbooks that are used for the same subject, but in a different grade shows improvement when it comes to quantity and quality of themes that promote intercultural in these subjects: *My environment/society*, *Introduction to Society*, *Society and History*. The comparison among different textbooks used for the same subject and the same grade shows that some textbook writers paid attention to

including themes that promote intercultural. This can especially be seen in some textbooks used in the old curriculum (8-grade system of elementary education) as opposed to some textbooks used in the new curriculum (9-grade system of elementary education). The more recent textbooks contain more themes that relate to intercultural education. One of the positive aspects of these textbooks is the fact that writers included different practical tasks especially with younger students at lower levels in order to see how much they have understood from direct teaching and theory.

In order to improve the quality of implementing intercultural education, teachers should follow contemporary good practices and guidelines that suggest exemplars for classroom activities to support the development of intercultural awareness and competence (Салимовска, С., at al., 2007). Furthermore, it is necessary during the process of textbook writing to pay more attention to incorporate conceptually and contextually clear themes so that students can have a clear concept and form the values that constitute the basic needs of an intercultural society. When selecting themes for textbooks, it is necessary to make sure to have balance between themes that emphasize the national and personal identity on one hand, and those that promote interaction among members of different cultures without stereotypes, labeling and prejudice on the other hand. The content of textbooks and manuals needs to reflect the reality of the society we live in. It also needs to promote building intercultural within the subject these textbooks are used for. The illustrations in all textbooks, especially in those used with younger students, need to show anthropological features or the traditional dress of different ethnic groups that live in the Republic of Macedonia. It is very important to pay attention to questions and examples that illustrate intercultural, especially during practical tasks. In order to achieve this, the textbooks need to involve activities and tasks that allow students to understand gradually

the culture code of the society they live in so that they can grow and develop into autonomous individuals that will have faith in an intercultural society.

REFERENCES

- Batelaan, P. (2004). Interkulturalni odgoj i obrazovanje u 21. stoljeću: Naučite živjeti zajedno, *Zbornik radova Među-narodne naučne konferencije Inter-kulturalne perspektive*, Zagreb: IGI, 5-13.
- Birzea, C. (2004). Obrazovanje za demokraciju: obrazovne politike u Vijeću Europe, *Zbornik radova Me-đunarodne naučne konferencije Inter-kulturalne perspektive*, Zagreb: IGI, 15-22.
- Gherga, E. (2007). *Obuka profesora nacio-nalnih manjina u unterkulturalnoj pers-pektivi*. Retrieved from <http://www.susedski2007.cdcs.org.rs/Publikacije/10publikacije.pdf>
- Intercultural Education in the Primary School* (2005). Retrieved from <http://www.ncca.ie/uploadedfiles/Publications/Intercultural.pdf>
- Кениг, Н. (2008). *Квалитативни методи на истражување*. Скопје: Фило-зофски факултет.
- Portera, A. (2008). Intercultural education in Europe: epistemological and se-mantic aspects. *Intercultural Education*, 19 (6), 481–491.
- Салимовска, С., at al., (2007). *Интер-културно образование (прирачник за наставници)*. Скопје: ФОСИМ.
- UNESCO Guidelines on Intercultural Education* (2006). Retrieved from <http://unesdoc.unesco.org/images/0014/001478/147878e.pdf>

PARAMETRICAL WORDS IN THE SENTIMENT LEXICON

Dr. Elena G. Brunova, Head of the Department of Foreign Languages and Cross-Cultural Communication, Tyumen State University, Russia, Tyumen
E-mail: egbrunova@mail.ru

Abstract: In this paper, the main features of parametrical words within a sentiment lexicon are determined. The data for the research are client reviews in the Russian language taken from the bank client rating; the domain under study is bank service quality. The sentiment lexicon structure is presented; it includes two primary classes (positive and negative words) and three secondary classes (increments, polarity modifiers, and polarity anti-modifiers). This lexicon is used as the main tool for the sentiment analysis carried out by two methods: the Naïve Bayes classifier and the REGEX algorithm.

Parametrical words are referred to as the words denoting the value of some domain-specific parameter, e.g. the client's time consuming. To distinguish the main features of parametrical words, the parameters relevant for the bank service quality domain are determined. The revised lexicon structure is proposed, with a new class (decrements) added. The results of the research demonstrate that parametrical words express implicit opinions, since parameters are not usually named directly in reviews. Only a small number of parametrical words can be ranged into the primary classes (positive or negative), but this ranging is domain-specific. It is the parameter that determines the domain specificity of such words. Most parametrical words are ranged into the secondary classes, and this ranging can be considered universal. The parametrical words denoting the increase of a parameter should be ranged into the increment class, as they intensify positive or negative emotions. The parametrical words denoting the decrease of a parameter should be ranged into the decrement class, as they reduce positive or negative emotions. The evident progress on the way to the sentiment lexicon universalization can be achieved by classifying parametrical words within the sentiment lexicon.

Keywords: cognitive linguistics, natural language processing, sentiment analysis, lexicon, domain, parametrical words, increment, decrement.

1. INTRODUCTION

Sentiment analysis is one of the rapidly developing methods of natural lan-

guage processing. The first works were published in early 2000s (Nasukawa & Yi, 2003; Pang et al., 2002; Turney, 2002; Wiebe et al., 2001), and since then much has been done in this field. Sentiment lexicons have been built; algorithms have been developed (Gamon et al., 2005; Hu & Liu, 2004; Liu, 2010; Manning et al., 2008; Pang & Lee, 2008). All these successful studies were focused on the English language, and it seemed logical to apply their results to other natural languages, translating the lexicons and modifying the tools for syntactic analysis. However, the attempts to build a universal sentiment lexicon, the principal sentiment analysis tool, failed.

A *sentiment lexicon* is a set of words which are used to express opinions and emotions in sentiment documents (reviews, etc.), it is generally divided into two classes: the positive and negative ones (Pang et al., 2002). After numerous experiments, it is evident that such a lexicon should be both language-specific, and domain-specific.

The problem of language specificity concerns the differences in the morphological structure of natural languages, while the problem of domain-specificity is a semantic one. Some words from sentiment lexicons appear domain-specific (Ganapathibhotla & Liu, 2008: 242), e.g. the word *long* can be ranged into the positive lexicon when evaluating the battery operation (the smartphone domain), but it can be ranged into the negative lexicon in evaluating the client's time consuming (the bank service quality domain). In this paper, such ambiguous words as *long* are called *parametrical words*.

Parametrical words are referred to as the words denoting the amount of some domain-specific parameter (battery life, the client's time consuming, etc.).

The purpose of this paper is to determine the main features of parametrical words within a sentiment lexicon.

2. MATERIALS AND METHODS

The data for the research are the client reviews in the Russian language on bank service quality from the bank client rating taken from (www.banki.ru). The domain under study is bank service quality. To build a sentiment lexicon, 20 reviews (10 positive and 10 negative ones) were randomly selected. From this content, the seed, i.e. basic, lexicon containing 100 words was constructed manually. Then the seed lexicon was extended up to about 500 words, using synonyms, antonyms, and the

sentiment consistency technique (Liu, 2010). This technique first proposed in (Hatzivassiloglou & K. McKeown, 1997) uses a list of seed opinion adjective words and a set of linguistic constraints (*and*, *but*, *either-or*, *neither-nor*) to identify other opinion words and their polarity. For instance, in the sentence *This i-phone is beautiful and easy to use*, if *beautiful* is known to be positive, it can be inferred that *easy* is also positive. On the contrary, in the sentence *This i-phone is beautiful, but expensive*, if *beautiful* is known to be positive, it can be inferred that *expensive* is negative. The seed words with the linguistic constraints were entered to the Google search engine with the search limitation within (www.banki.ru).

All the words in the lexicon were stemmed for easier processing.

The structure of the lexicon is presented in Table 1.

Table 1. The structure of the sentiment lexicon (bank service quality)

| Lexicon classes | | | | |
|---|--|---|---------------------------------------|----------------------------|
| Primary classes | | Secondary classes | | |
| Positive | Negative | Increments | Polarity Modifiers | Polarity Anti-Modifiers |
| Безопасный (safe), бесплатный (free), вежливый (polite), компетентный (competent), четкий (clear), эффективный (efficient) ... | Агрессивный (aggressive), безвыходный (hopeless), грубый (rude), досадный (annoying), обидный (offensive), трудный (difficult) ... | Очень (very), совершенно (absolutely), никогда (never)* ... | Не (no), нет (not), без (without) ... | Так (so), такой (such) ... |

* In English lexicons, such words as *never*, *nobody*, etc. should be ranged into the polarity modifiers. In Russian lexicons, however, due to the occurrence of double negation in the Russian syntax, such words are not polarity modifiers, but increments.

As Table 1 demonstrates, the sentiment lexicon includes two primary classes: *positive* and *negative* words denoting posi-

tive and negative opinions, respectively. Besides, it includes three secondary classes: *increments*, *polarity modifiers*, and *polarity anti-modifiers*.

Increments are referred to as the words intensifying the polarity of the other words within a sentence without changing it into the opposite one, e.g. in the contexts *Это очень надежный банк*. (This is a

very reliable bank) and *Это очень плохие условия кредита* (These are very poor credit terms), the word *очень* (very) is an increment which intensifies the positive and negative opinions, respectively.

Polarity modifiers are referred to as the words which change the polarity of the other words within a sentence into the opposite one, e.g. in the context *Сами работники банка не грубые и не злые* (The bank operators themselves are not rude and aggressive) the positive opinion is expressed, though the context includes negative words *грубые* (rude), *злые* (aggressive); the word *не* (not) is a polarity modifier which changes their polarity into the positive one.

Polarity anti-modifiers are referred to as the words which cancel the change in the polarity in spite of the occurrence of polarity modifiers within a sentence. Compare two contexts: 1) *Меня никогда не обманывали* (I have never been cheated) 2) *Меня никогда так не обманывали* (I have never been cheated in such a way). In spite of almost complete similarity of the words, these contexts express opposite opinions: the positive one and the negative one, respectively. The difference is that in the first context, the word *никогда* (never) implies *never in this bank*, and in the second one it implies *never except this bank*. The word *так* (such) is a polarity anti-modifier, which cancels the change in the polarity in the second example, and it remains negative, as the context contains the negative word *обманывали* (cheated).

To carry out the sentiment analysis, the REGEX algorithm was developed. The algorithm included 11 formal grammar rules and the corresponding syntactic models, being a sort of regular expressions which detect certain text elements, simplify each sentence, and present the text as a formal model. One of these rules is presented below.

Rule 1. If between the beginning of the sentence, or a punctuation mark, or a conjunction (*and/or*) and the next punctuation mark, or a conjunction (*and/or*), or the

end of the sentence, there is a polarity modifier, then the polarity of all the words referred to the sentiment lexicon within this segment is changed into the opposite one. The sequence of the elements (a polarity modifier, a positive/negative word, any other word) does not matter.

When formalized, the rule can be presented as below:

$$\begin{aligned} & \langle S \rangle | \langle Z \rangle | \& \{ \text{ALT}, *, \text{Any POS} \} \\ & \langle Z \rangle | \& | \langle S \rangle | \langle !/S \rangle | \langle ?/S \rangle | \langle ?!/S \rangle \rightarrow \\ & \rightarrow \langle S \rangle | \langle Z \rangle * \text{Any NEG} \\ & * \langle Z \rangle | \& | \langle S \rangle | \langle !/S \rangle | \langle ?/S \rangle | \langle ?!/S \rangle \rightarrow \\ & \rightarrow n\text{NEG} \rightarrow -n \end{aligned}$$

where $\langle S \rangle$ is the beginning of the sentence;

$|$ is the divisor of equally allowable elements,

$\langle Z \rangle$ is a punctuation mark;

$\&$ is the and/or conjunction;

ALT is a polarity modifier;

POS is a word from the positive lexicon,

NEG is a word from the negative lexicon;

$*$ is any other word;

$\{A, B, C\}$ is the group of the elements which can follow in any sequence;

Any is any number of elements;

$\langle /S \rangle$, $\langle !/S \rangle$, $\langle ?/S \rangle$, $\langle ?!/S \rangle$ are the ends of the sentence with a full point, an exclamation mark, an interrogation mark, or both, respectively;

The REGEX algorithm included successive application of the substitution rules according to the priorities obtained from the experiments with the documents from the training set. For example, the application of Rule 1 resulted in the following layout conversion:

Платежи проходят очень быстро, деньги не зависят. (The payments are processed quickly, money doesn't become hung)

$$\begin{aligned} & \langle S \rangle * \text{POS} \langle Z \rangle * \text{ALT NEG} \langle /S \rangle \rightarrow \\ & \langle S \rangle * \text{POS} \langle Z \rangle * \text{POS} \langle /S \rangle \rightarrow \\ & \rightarrow 2\text{POS} \rightarrow +2 \end{aligned}$$

At a certain step of the algorithm, the number of the POS and NEG wildcards was calculated in each sentence, then the

draft sentence polarity was calculated (+2 in the example above). The group of the rules to correct the draft polarity was also applied. The output of the REGEX algorithm was the calculation of the document polarity normalized to the number of the words in the document.

To carry out the automatic sentiment analysis of the reviews, the SENTIMENTO system was implemented as an Internet application with an interface for the model testing and its adjustment (Brunova, E.G., Bidulya Yu.V. (2014) Algorithm with Formal Grammar Elements for Sentiment Analysis. *Tyumen State University Herald*. No. 1, in press). Fig. 1 demonstrates the window of the sentiment analysis module with the conclusion of the system.

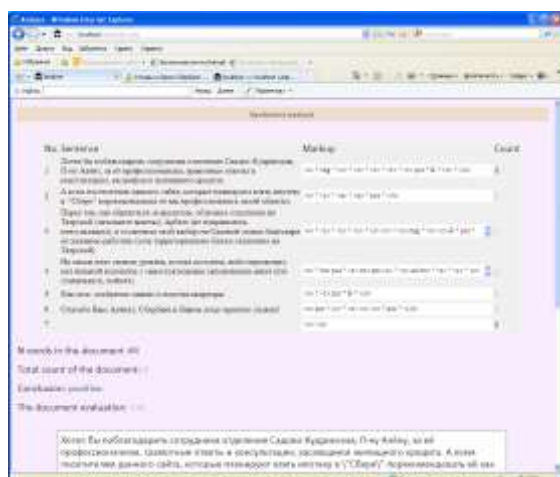


Fig.1. The SENTIMENTO software. The sentiment analysis module.

The system provides the opportunity for its users to confirm or reject the system conclusion, for this purpose, *Your conclusion* request is displayed with two buttons (*Positive* and *Negative*). The interface for entering human conclusions is presented in Fig.2. After the user presses a button, the system checks if the human conclusion matches the system one. In case it does, the document is included into the database. Besides, these results are used to calculate the system efficiency.

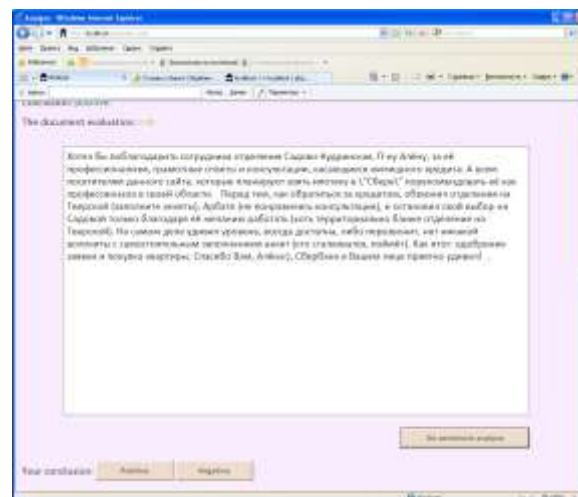


Fig.2. The interface for entering human conclusions

The efficiency of the proposed algorithm was evaluated in comparison with the efficiency of the Naïve Bayes Classifier (Webb et al., 2005).

The sentiment analysis experiments with the SENTIMENTO software revealed a number of problems, in particular, concerning parametrical words. For instance, a user evaluated the context *Предлагают маленький процент по вкладу* (A small deposit interest was offered) as negative, while the system evaluated it as neutral, since it did not detect any negative words in it. As for the context *Очередь была совсем маленькая* (The queue was quite small), the human conclusion was positive, while the system conclusion was negative, as it detected a negative word *очередь* (queue).

Thus, the behavior of parametrical words in reviews differs from that of negative or positive words, and ignoring this fact leads to incorrect analysis results.

3. RESULTS AND DISCUSSION

Researchers notice that some words, e.g. *очень* (very), *совершенно* (absolutely), *долго* (long), *медленно* (slowly), demonstrate their ambiguous nature in the process of sentiment analysis. N. Lukashevich and I. Chetverkin distinguish operators affecting the semantic polarity,

however, their operators include rather negation words (*не (not), нет (no)*) or adjective **increments** (*очень (very), самый (most, least)*), **than** adjectives themselves (Lukashevich & Chetverkin, 2011: 77). **Nevertheless, the** adjectives, adverbs, and even nouns (e.g. *максимум* maximum) expressing the amount of a parameter could be included into the sentiment lexicon. Such words express the intensity of the domain attribute, or parameter, e.g. the client's time saving.

Depending on the parameter, a positive or negative opinion can be expressed, while it increases or decreases. For instance, the word *high* spoken or written about the speed of service (the parameter is the client's time saving) is evaluated as positive, but the word *high* spoken or written about the price or credit interest (the parameter is the client's money costs) is evaluated as negative. It is the parameter that determines the domain specificity of such lexicon units.

To determine the main features of parametrical words, the contexts containing the words meaning *large, small, long, short, maximum, minimum*, etc. were extracted from the corpus of the 70 client reviews randomly selected from (www.banki.ru). The study of these contexts enabled the domain-specific parameters to be determined.

Consider the parameters relevant for the bank service quality domain, below a context per each parameter is cited, the parametrical words are underlined, the translation into English is given in brackets:

Positive opinions

1) Increase in the parameter

a) The client's positive emotions: *хочется отметить оперативность в работе и готовность оказать МАКСИМУМ помощи даже потенциа-льным клиентам* (I'd like to emphasize the speed of operation and the readiness to offer the maximum of help even to potential clients)

b) The client's cost saving: *Карта с НЕМАЛЫМ лимитом* (The card with a considerable limit)

c) The client's time saving: *Наш кредит одобрили очень БЫСТРО* (Our credit was approved very fast)

d) The sufficiency of service information: *Много информации, листовки, плакаты с рекламой* (There is a lot of information, there are advertising leaflets and posters)

2. Decrease in the parameter

a) The client's negative emotions: *НЕБОЛЬШОЙ список замечаний* (short list of remarks)

b) The client's money costs: *МАЛЕНЬКИЙ ПРОЦЕНТ ПО КРЕДИТУ* (LOW CREDIT INTEREST)

c) The client's time consuming: *Очередь была совсем маленькая* (The queue was quite small)

Negative opinions

1) Increase in the parameter

a) The client's negative emotions: *ХИТРОСТИ ДЛЯ БОЛЬШОГО ОБМАНА* (*TRICKS FOR A GREAT FRAUD*)

b) The client's money costs: *Я И ТАК ПЛАЧУ НЕМАЛЫЙ ПРОЦЕНТ ЗА ПОЛЬЗОВАНИЕ КРЕДИТОМ* (*ANYWAY, I PAY A CONSIDERABLE CREDIT INTEREST*)

c) The client's time consuming: *БАНК ДЛЯ ТЕХ, У КОГО МНОГО ЛИШНЕГО ВРЕМЕНИ* (*THE BANK IS FOR THOSE WHO HAVE MUCH SPARE TIME*)

2. Decrease in the parameter

a) The client's positive emotions: *ТОЛКУ МАЛО* (little use.)

b) The client's cost saving: *ЛИМИТ МАЛЕНЬКИЙ* (The credit limit is small.)

c) The client's time saving: *ПЛАТЕЖИ ПРОХОДЯТ МЕДЛЕННО* (The payments are processed slowly)

d) The sufficiency of service information: *ИНФОРМАЦИИ МАЛО* (there is little information)

The extracted parameters are summarized in the diagram (Fig. 3).

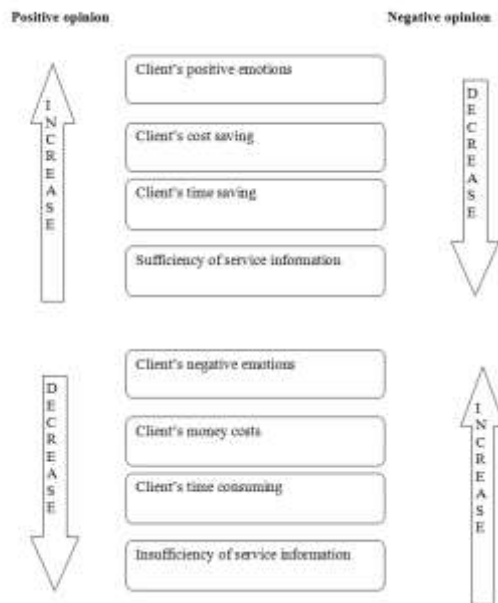


Fig. 3. The parameters of the sentiment analysis for bank service quality extracted from the review contexts

As it can be seen from the parameters determined (Fig. 3), the increase of a certain parameter results in a negative or a positive opinion, and the decrease of the same parameter results in the opposite opinion. For instance, the increase in the client's time saving evokes positive emotions and results in positive opinions, its decrease results in negative emotions and negative opinions. On the other hand, the increase in the client's money costs results in negative emotions and negative opinions, its decrease evokes positive emotions and results in positive opinions. Thus, parametrical words are not only domain-specific, but they demonstrate their ambiguous nature even within a single domain. This is confirmed by their occurrence within the same, mainly negative, context, cf. *Много слов, но мало дела* (There are many words, but little work) *Дают быстро, отдают долго* (They give quickly, but return slowly) *Большой минус и маленький плюс* (A large minus and a small plus).

The results of the analysis demonstrate that ignoring parametrical words in sentiment analysis results in incorrect conclusions, so they should be included into

the sentiment lexicon and ranged into one of its classes.

Only a small number of parametrical words can be ranged into the primary classes, e.g. the word *быстро* (fast) is ranged into the positive class, and the words *долго* (long) and *медленно* (slowly) are ranged into the negative one; this ranging is definitely domain-specific.

The parametrical words denoting the increase of a parameter (meaning *large*, *many*, *much*, *maximum*, etc.) should be ranged in the increment class along with the words meaning *very*, *absolutely*, etc., as they intensify positive or negative emotions. As it was mentioned above, increments are the words intensifying the polarity of the other words within a sentence without changing it into the opposite one. The parametrical words denoting the decrease of a parameter (meaning *small*, *little*, *few*, *minimum*, etc.) should be ranged in a new class which may be referred to as the decrement class. *Decrements* are the words decreasing the polarity of the other words within a sentence without changing it into the opposite one. Thus, most parametrical words are ranged into the secondary classes; this means that they do not express the direct opinion, but affect the intensity of the opinion expressed by other words.

The revised structure of the sentiment lexicon is presented in Table 2, the parametrical words are underlined.

Table 2. The revised structure of the sentiment lexicon (bank service quality)

| Lexicon classes | | | | | |
|---|---|--|---|---|-------------------------------|
| Primary classes | | Secondary classes | | | |
| Positive | Negative | Increments | Decrements | Polarity Modifiers | Polarity Anti-Modifiers |
| Безопасный (safe), бесплатный (free), вежливый (polite), компетентный (competent), четкий (clear), эффективный (efficient), быстро (fast) ... | Агрессивный (aggressive), безвыходный (hopeless), грубый (rude), досадный (annoying), обидный (offensive), трудный (difficult), долго (long), медленно (slowly)... | Очень (very), совершенно (absolutely), никогда (never), нигде (nowhere), много (much), много (many), максимум (maximum), большой (large), высокий (high) ... | Мало (little), а few), минимум (minimum), маленький (small), низкий (low) | Не (no), нет (not), без (without) ... | Так (so), такой (such) ... |

4. CONCLUSION

The general features of parametrical words within the sentiment lexicon are determined. The structure of the sentiment lexicon is revised; a new class (decrements) is added.

The results of this research demonstrate that the behavior of most parametrical words in reviews differs from that of negative or positive words, and ignoring this fact results in incorrect sentiment analysis results. Parametrical words generally express the implicit opinion: they do not express the opinion directly, but affect the intensity of the opinion expressed by other words. Besides, the parameters themselves are not usually named directly in reviews.

Parametrical words should be included into the sentiment lexicon as follows:

1) A small number of parametrical words can be ranged into the primary classes (positive or negative), but this ranging is domain-specific. It is the parameter that

determines the domain specificity of such words.

2) Most parametrical words are ranged into the secondary classes (increments or decrements), and this ranging can be considered universal.

Thus, the evident progress on the way to the sentiment lexicon universalization can be achieved by classifying parametrical words within the sentiment lexicon.

REFERENCES

- Brunova, E.G. (2012). Metodika Sostavleniya Otsenochogo Leksikona dlya Kontent-Analiza Mneniy (Technique of Constructing a Sentiment Lexicon) *Language and Science*. No. 1. (Online). Available: <http://www.utmn.ru/docs/9317.pdf> (in Russian)
- Gamon M., et al. (2005). Pulse: Mining Customer Opinions from Free Text. *Proc. of the 6th International Symposium on Intelligent Data Analysis (IDA)*. P. 121-132.
- Ganapathibhotla, M., Liu B. (2008). Mining Opinions in Comparative Sentences. *Proc. of the 22nd*

- International Conference on Computational Linguistics*. Manchester. P. 241–248.
- Hatzivassiloglou V., McKeown K. (1997). Predicting the Semantic Orientation of Adjectives. *Proc. of the 35th Annual Meeting of ACL*, Madrid. P. 174-181.
- Hu M., Liu B. (2004). Mining and summarizing customer reviews. *Proc. of the tenth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*. P. 168-177.
- Liu, B.(2010). Sentiment Analysis and Subjectivity. *Handbook of Natural Language Processing, Second Edition*. (Online). Available: <http://www.cs.uic.edu/~liub/FBS/NLP-handbook-sentiment-analysis.pdf>
- Lukashevich, N.B., Chetverkin I. I. (2011). Izvlecheniye i Ispolsovaniye otsenochnykh Sloz v Zadache Klassifikatsii Otzyvov na Tri Klassa (Extracting and Application of Sentiment Words in the Task of Three-Class Review Classification). *Vychislitelnye Metody i Programirovaniye*. Vol. 12. P. 73-81. (in Russian).
- Manning C., Raghavan P, Schütze H. (2008). *Introduction to Information Retrieval*. Cambridge: Cambridge University Press. 544 p.
- Nasukawa T., Yi J. (2003). Sentiment Analysis: Capturing Favorability Using Natural Language Processing. *Proc. of the 2nd International Conference on Knowledge Capture*. Florida. P. 70-77.
- Pang B., Lee L. (2008). Opinion Mining and Sentiment Analysis. *Foundations and Trends in Information Retrieval*. Vol. 2, No 1-2. P. 1–135.
- Pang B., Lee L., Vaithyanathan S. (2002). Thumbs up? Sentiment Classification using Machine Learning Techniques. *Proc. of EMNLP*. (Online). Available: <http://www.cs.cornell.edu/home/llee/papers/sentiment.pdf>
- Turney P. (2002). Thumbs Up or Thumbs Down?: Semantic Orientation Applied to Unsupervised Classification of Reviews. *Proc. of the 40th Annual Meeting on Association for Computational Linguistics*. P. 417-424.
- Webb, G. et al. (2005). Not So Naive Bayes: Aggregating One-Dependence Estimators. *Machine Learning*. 58. P. 5-24.
- Wiebe J., Wilson T., Bell M. (2001). Identifying Collocations for Recognizing Opinions. *Proc. of ACL/EACL 01 Workshop on Collocation*. www.banki.ru

FORMS OF MOVEMENT IN TERMS OF ELEMENTARY GAMES AT PHYSICAL EDUCATION CLASSES

Dr. Igor Stanojević, College of professionals studies educators, Aleksinac, Serbia

E-mail: stanojevic3@gmail.com

Dr. Dejan Milenković, Faculty of Sport and Physical Education, Niš, Serbia

E-mail: dejan_milenkovic79@yahoo.com

Abstract: A sample of 60 respondents was drawn from the population of students of the third grade of primary school in Nis, aged nine \pm 6 months, male, who attend regular physical education classes. Subsample of 30 respondents worked on speed and strength development through elementary games at additional physical education classes (experimental group), while the control group had only regular physical education classes defined by primary school curriculum. The aim of this study was to determine the effects of work on speed and strength development within the framework of extra physical education classes in the third grade. Tests for the assessment of speed implied six tests: running at 20, 40 and 60 meters, hand tapping, foot tapping and feet tapping on the wall; tests for the assessment of strength implied five tests: push-ups, back lifting, squats, trunk lifting on Swedish bench and trunk lifting for 30 seconds. For determining the effects multivariate analysis of covariance was applied. The results indicated statistically significant effect of the work on the experimental group in both motor dimensions.

Keywords: forms of movement, elementary games, physical education, speed, strength.

1. INTRODUCTION

The essence of physical education classes, besides the optimal development of anthropological characteristics of students and the adoption of sport-technical education, is acting in direction of inclusion process of physical exercise in every daily life, ie. the systematic application of physical exercise becoming a part of the value system of students.

The contents of physical education classes are focused on acquisition of motoric skills, knowledge, habits and abilities, through implementation of the Curriculum as defined by the Ministry of Education. In addition to the contents of

the program that have to be implemented, didactical-methodical guidelines for their implementation are defined as well. Based on these guidelines as well as on his own ingenuity, the educator has to plan and programme his school class considering the capabilities and characteristics of his students determined at the initial measuring and pretesting.

Exercise activities of the curriculum include so-called „elementary games“. They are not only the framework of educational process for the development of skills and qualities, but also for funny and enjoyable activity that spontaneously leads to joy and satisfaction, in which the students show themselves as they really are (Grandić, 1997). Application of elementary games in physical education classes is developing skills and qualities, acquisition of motoric abilities, emotional enrichment of life, volitional characteristics and personality traits. Using this form of exercise in addition to developing of their physical abilities, students have the opportunity to socialize and develop their creative skills.

Elementary games are kind of free (voluntary) selected activities, which are motivated by pleasure of participating in and self-realization. They are not the result of coercion or motivated by any financial gain. They are characterized by diverse rallies of pairs or small groups of students in order to satisfy the inherent needs for rectilinear, curvilinear and natural body movements (Ivanović, 2002). Since the earliest times of mankind, the game had its place in physical activities of man. The game had its beginnings in production work and in social consciousness of certain groups of people (the magical play, ritual

dances). The ancient philosophers in their theoretical discussions about society, talked about the game, considering it to be of great importance in raising and upbringing of new generations. It's the same with other ancient civilizations where physical education indicates that the ancient people had always practised the game for various purposes, especially because of its educational and artistic value and its impact on young people's health. The Middle Ages was a period of darkness in development of physical education, the period when it was completely neglected, and therefore all its forms. The only form of physical activity could be seen in the repertoire of chivalric tournaments, where they fought by strictly defined rules. The new century meant the return of physical education to the position it deserves, and therefore the game has become an important factor in education. Various forms of the game made an integral part of culture of all human communities in the course of their development. Therefore, it had always been the subject of study of historians, theoreticians of physical education (Ivanović, 2002; Nemec, 1999).

1.1. The concept and characteristics of elementary games

Elementary games are psychomotor activity based on natural way of movement and manipulation of own body, with or without equipment, with expression of various emotional states, intelligence, attitudes and behavior in accordance with moral ideals. At the beginning, they were simple, childish, funny, national games, and later, in modern terminology of physical education, they got the name - elementary games, all in order to differ from more complex sports games.

Basic characteristics of elementary games are free actions, demonstration of abilities, skills, ingenuity, creativity, perseverance, pal outwittings, expression

of status and desire for mobility, simplicity and accessibility, simple means, play area, game rules and unlimited number of participants. Elementary games can be classified according to various criteria. According to motoric content: games with running, jumping, catching and throwing, pushing games with dragging and wearing. Elementary games can also be divided according to its influence on certain physical fitness: strength, speed, endurance, agility, volubility, etc. Based on equipment and devices they can be: games with and without equipment and appliances; according to location and climate they are divided into indoor games (gym) and outdoor games (playground with hard court, grass, sand, snow, ice). Regardless of the characteristic of free activities in the implementation of elementary games, it should be noted that they are used in education, and that students need to indicate the type and the way the game should be applied. All habits acquired in lifetime are the result of numerous and sometimes boring repetitions, so in elementary games it should be known when, how and how many of them to use. Elementary games can generally be administered to all students regardless of their age and gender, along with paying attention to duration and intensity of efforts, size and shape of equipment and playgrounds.

How to choose a game and how to apply it, depends on needs, available space, equipment and weather conditions. In order to perform the game the right way, first of all it has to be well-designed, well-prepared and the structure of its performance with a certain number of repetitions should be learnt. All the props and means, if the game requires them, should be prepared on time in order to keep everything running smoothly. Before the beginning, students should be briefly informed about the content and rules of the game.

2. WORKING METHOD

The aim of this study was to determine the effects of work on speed and strength development within the framework of extra physical education classes in the third grade. A sample of 60 respondents was drawn from the population of students of the third grade of primary school in Nis, aged nine \pm 6 months, male, who attended regular physical education classes. Subsample of 30 respondents worked on speed and strength development through elementary games at extra physical education classes (experimental group), while the control group attended regular physical education classes determined by primary school curriculum.

Tests for the assessment of speed implied six tests: running at 20 meters (RA20), running at 40 meters (RA40), running at 60 meters (RA60), hand tapping (HTAP), foot tapping (FTAP) and feet tapping on the wall (FTW); tests for the assessment of strength implied five tests: push-ups (PUSH), back lifting (BLIFT), squats (SQUAT), trunk lifting on Swedish bench (TLIFT) and trunk lifting for 30 seconds (TL30). Applied set of motor variables was taken from research of Kurelića et al. (1975) and Šoša and Rađe (1998).

For the purpose of this study, analysis of variance was used in the case when the experimental and control groups

are significantly different at the beginning of the treatment; also when the experimental and control groups do not differ significantly, but their treatments are conducted under varying objective conditions.

2.1. Elementary games for speed development

As the content of elementary games for speed development, various forms of running can be distinguished (forward, backward, laterally, skip, high skip, skip laterally). These are mostly running and catching tasks.

Catching its pair, Race of numbers, Speed hand, The prisoners, Protected helpers, The wolf and the sheep, Funny catching, Who catches the fastest?

2.2. Elementary games for strength development

Elementary games for strength development refer to various pulling, pushing, standing, squatting, sitting, carrying on back and in arms, games like "who can more" (sit-ups, push-ups, squats).

Crabs playing, Šmall scabies at squat, Lying relay, Lobster, Stations, Caterpillars.

Table 1. An example of an additional physical education class for speed and strength development

| | |
|---|--|
| The introductory part of the class | <ul style="list-style-type: none"> • slow runninge • lateral running step-by-step • children's jump • running with high skip • running with lower leg throwing back • jumpings from leg to leg • jumpings on one leg • running backwards |
| The preparatory part | <ul style="list-style-type: none"> • stretching exercises (5-10x) |

| | |
|------------------------------------|---|
| of the class | <ul style="list-style-type: none"> - S.P. foot by foot, arms in front of the body with crossing, arms of the body with rising of toes. - S.P. straddle, arms at hip – lateral position of the body - S.P. straddle, arms of the body - standing upper-body rotation - S.P. straddle, arms up - orbiting trunk - S.P. spetni, arms to the body - squat-lying resistor - S.P. lying on back – arms in front of body and step forward, endure - S.P. lying on belly, arms up. Rotate with trunk, endure. - S.P. resistor from squat position – high jump-sprawled body |
| The main part of the class | <ul style="list-style-type: none"> • elementary game for speed development: <i>Race of numbers</i> Students are arranged in two circles of the same numbers. Each student has its own number and when it is called out, student runs around its circle in a clockwise direction. The student who arrives first at his place, makes one point to his circle (team). • elementary game for strength development: <i>Stations</i> Several teams are competing. On a given signal, the first from the column run to the turnstile and back. On that path there are a few stations with stretching exercises. For example: 1. station - three squats, 2. station - five push-ups, 3. station - five sit-ups. The number of cells and the choice of design exercises are arbitrary. The time is measuring and it is insisted on proper exercise form. |
| The final part of the class | <ul style="list-style-type: none"> • the formation of a semi-circle, breathing exercises in order to establish the normal state of physiological functions. |

3. RESEARCH RESULTS

Table 2. Multivariate analysis of covariance between exsperimental and control group in terms of speed at final measuring with a neutralization of the differences from the initial measuring

| <i>Wilks' Lambda test</i> | <i>Rao F aproximation</i> | <i>P-level</i> |
|---------------------------|-------------------------------|----------------|
| .458 | 5.98 | .000 |

Multivariate analysis of covariance (Table 2) between experimental and

control groups at the final measuring with neutralization of differences from initial measuring, indicates a statistically significant effect of the program on speed development through elementary games at additional physical education classes. The level of significance $P/\text{level} = .000$, and the value of F-ratio 5.98 point out that difference.

Table 3. Univariate analysis of covariance between experimental and control group in terms of speed at final measuring with a neutralization of the differences from the initial measuring

| Speed tests | Adj. Mean (e) | Adj. Mean (k) | F-ratio | P-level |
|-------------|---------------|---------------|---------|---------|
| RA20 | 3.60 | 3.90 | 3.48 | .000 |
| RA40 | 6.50 | 7.00 | 4.19 | .000 |
| RA60 | 9.15 | 9.30 | 1.48 | .153 |
| HTAP | 43.59 | 42.89 | 1.58 | .120 |
| FTAP | 32.65 | 30.14 | 2.59 | .016 |
| FTW | 21.48 | 19.65 | 3.45 | .000 |

Table 3 shows the values of individual tests at analysis of covariance between the experimental and control groups at the final measuring with neutralization of differences from initial measuring of speed. There is a statistically significant intergroup difference ($P < .01$) in favor of the experimental group at the level of four from six speed tests: running on 20 and 40 meters (RA20 .000; RA40 .000), foot tapping (FTAP .016) and feet tapping on the wall (FTW .000).

Table 4. Multivariate analysis of covariance between experimental and control group in terms of strength at final measuring with a neutralization of the differences from the initial measuring

| Wilks' Lambda test | Rao F aproximation | P-level |
|--------------------|-----------------------|---------|
| .552 | 7.96 | .000 |

When it comes to strength development through elementary games, multivariate level of analysis of covariance (Table 4) points out a statistically significant effect of the program on strength development through elementary games on the additional physical education classes, as indicated by the level of significance $P/\text{level} = .000$ and value of F-ratio 7.96.

Table 5. Univariate analysis of covariance between experimental and control group in terms of strength at final measuring with a neutralization of the differences from the initial measuring

| Strength tests | Adj. Mean (e) | Adj. Mean (k) | F-ratio | P-level |
|----------------|---------------|---------------|---------|---------|
| PUSH | 14.45 | 13.51 | 9.07 | .000 |
| BLIFT | 16.12 | 14.07 | 54.00 | .000 |
| SQUAT | 16.01 | 14.29 | 24.42 | .000 |
| TLIFT | 20.22 | 20.77 | 78.67 | .000 |
| TL30 | 16.96 | 16.93 | 20.51 | .000 |

The values of individual tests at analysis of covariance (Table 5) show a significant intergroup difference ($P < .01$) in favor of experimental group at the level of all strength tests: push-ups (PUSH, .000), back lifting (BLIFT .000), squats (SQUATS .000), trunk lifting on the Swedish bench (TLIFT .000) and trunk lifting in 30 seconds (TL30 .000).

4. DISCUSSION AND CONCLUSION

Physical education should be well organized and it should provide the opportunity to students for having quality practice as well as for having fun. Among other things, this can be achieved by applying elementary games. They are very simple, but rich in motor and emotional content, which develop and improve natural abilities and qualities of the child, as a manifestation of their great need for self-expression. The games make it possible for them to experience the environment actively, to adapt quickly to new situations and to gain new life experiences more effectively. Some games teach children mastering complex efforts, development of personal preferences and adapting to possible failure, what is a positive effect on development of character. That's how children build up their own criteria of acceptance of positive personality by comparing abilities (consciously or unconsciously) with the abilities of other participants. But it is important to emphasize that priority is given to health and proper physical and spiritual development of students.

The world of games, which is the closest and the most interesting to the child, is a great starting point for the development of mental and physical skills

necessary for including into all spheres of everyday life. The game appears as „the first school of life“ (Nemec, 1999) in which the child expresses its potential received as genetic heritage. Imitating life of the adults, children emulate the actions that are registered with their senses, and in that way they are actually preparing themselves for real life that awaits them.

Elementary games allow joint realization of all pedagogical aims of children's education. Versatility of elementary game can be seen in the following example: by improving its motor status through the game, the child is able to make a significant impact on its social status, because skillful and agile child can easily gain the affection of its friends, standing out as a leader.

The research of elementary games is usually connected to different sports. They are used as a part of a training process as well as other operators of work for the development of all dimensions of motoric abilities. They are applied in handball (Ohnjec at all, 2010; Sabo, 1993), basketball (Užičanin, 2008), as well as in water sports (Rašidagić, 2011).

This study looked at the use of games in elementary school setting with students of junior school age. The paper discusses whether the speed and strength as repetitive segments of the human motorics react to constant quarterly performance programs of elementary games within the framework of extra physical education classes. Because of the application of the elementary games within the framework of extra physical education classes a statistically significant effect of work was recorded in both tested areas.

REFERENCES

- Grandić, R. (1997). Teorija fizičkog vaspitanja. Novi Sad: *Savez pedagoških društava Vojvodine*.
- Ivanović, M. (2002). Vežbe oblikovanja i elementarne motoričke igre. Valjevo: *Grafiti Co*.
- Kurelić, N., Momirović, K., Stojanović, M., Radojević, Ž. & Viskiće-Štalec, N. (1975). Struktura i razvoj morfoloških i motoričkih dimenzija omladine. Beograd: *Institut za naučna istraživanja Fakulteta za fizičko vaspitanje Univerziteta u Beogradu*.
- Nemec, P. (1999). Elementarne igre i njihova primena. Beograd: *Izdavačka zadruha IDEA*.
- Ohnjec, K., Horvatin-Fučkar, M. & Gruić, I. (2010). Elementary games in function of reaction speed development of young male and female team handball players. (Elementarne igre u funkciji razvoja brzine reakcije mladih rukometaša i rukometašica). In R. Pišot, V. Štemberger, B. Šimunić, P. Dolenc & R. Malej (Eds). *The 6th international scientific and expert symposium Portorož 2010, Contemporary views on the motor development of a child*, (pp 186-188). Portorož, Slovenia: University of Primorska, Science and Research Centre of Koper.
- Rašidagić, F. (2011). Analysis of quantitative changes in explosive strength under the influence of elementary water games. (Analiza kvantitativnih promena u eksplozivnoj snazi pod uticajem elementarnih vodenih igara). *Homosporticus*, 13 (2), 31-35.
- Sabo, E. (1993). Elementarne igre za obuku i usavršavanje rukometa u osnovnoj školi. *Fizička kultura*, 47 (1-2), 19-22.
- Šoš, H. i Rađo, I. (1998): Mjerenje u kineziologiji. Sarajevo: *Fakultet za fizičku kulturu*.
- Užičanin, E. (2008). Elementary games in basketball training (Elementarne igre u treningu košarke). *Sport Scientific Practical Aspect*, 5 (1-2), 70-74.

VALUE-SEMANTIC SCOPE OF PERSONAL SPACE OF UNIVERSITY STUDENTS

Dr. Natalia N. Mozgovaya, Southern Federal University, Rostov-on-Don, Russia

E-mail: mozg291973@mail.ru

Dr. E.A. Suroedova, The Don state technical university, Rostov-on-Don, Russia

E-mail: suroedova@mail.ru

Abstract: The analysis of theoretical and empirical works on psychology of the personality and axiological sphere of students' activity of the university has been carried out in this article. During the empirical research of formation of the axiological sphere of students of the second - fourth courses of Pedagogical Institution of the South Federal University they have got the definite results. These results helped to find out not only dynamics of these processes, but also the development of personal space components. The analysis of this problem revealed that a person values have the basic impact on all components of a personal space of the subject. The personal space of a man is at all stages of ontogenetic development. During a person's studentship it is the most noticeable. They have also found some connections between the students' values and their personal space formation and development.

Key words: components of personal space of a man, values and meanings, systems of values, activity spheres, students.

1. INTRODUCTION

New demands are placed on the modern higher education by the Russian society. They involve not only the formation of knowledge and abilities with the studying youth, but also their personal formation, development of such qualities, that would let new generation fulfill oneself as much as possible in the developed social and economic as well as in professional environment of university. Moreover, as practice shows, it isn't enough for a modern person to become just the subject or the personality. These days he or she has to grow out of it and form something new that is personal space.

2. MAIN PART OF THE STUDY

The personal space is characterized as a difficult, integrated psychological formation, being the result of a person's subjectness development (Mozgovaya, 2002). On the one hand, it provides a personal and identity security, possibility of self - presentation, self - protection from manipulative and any negative kinds of influences from other people. On the other hand, the personal space contributes to formation of the whole complex of moral and ethical, personal and significant and also individual and peculiar traits of a person.

Existence of both psychological space of a person and personal one is a significant and indisputable fact. However, this evidence is rather illusive because any attempts to introduce it face invincible obstacles, the main of which is its changeability. The phenomenon of psychological field is obviously lost in a circle of complicated psychological person's reality. Possibly, its most accurate definition is that of "escaping" phenomenon, "disappearing" in those numerous transformations, it faces on different stages of person's ontogenetic development (Mozgovaya, 2010).

Introduction of the concept of "personal space" into scientific usage in XX century is connected with the name of a German sociologist Georg Simmel (Pisachkin, 1997). Almost during the same year K. Levin began to use this concept. In his "space theory" the concept of "psychological life space" was represented. The concept included objective physical and quasi - physical, objective social and quasi - social factors (Levin, 2000).

K. Levin has given his characteristic of a personality as a certain differential integrity, where its own personal field is a significant part. He regarded maintenance of a personal space or that of «free life movement» as one of lemmas of creating of positive personal relationship. K. Levin considered, that the psychological field border allows keeping of personal integrity, adjusting the processes of “facts” interpenetration, while a person and the environment interact (Pisachkin, 1997).

B. D. Parygin, the Russian psychologist has the same point of view asserting that a person, as well as community, in case of having developed consciousness strives for protection of own integrity, autonomy, originality from independent external influences of the whole system of psychological barriers. The sense of harmonious individual development consists in independent identity balancing and in relation with others. Self-fulfillment is peculiar to a person. It involves alienation of others and identification with others. (Parygin, 1999).

Psychological space “I” and psychological space of other person are not identical though interpenetrating, allowing autonomy of each from these formations. They join each other on account of psychological distance that appears depending on what a person thinks about himself and others (Abramova, 1998).

The problem of a psychological distance is most deeply elaborated in works of gestalt-psychologists, who investigated contacts of the subject with the external world, considering the common between an organism and environment to be the border of their contact. According to F.S. Perls, this border has the psychological events: our ideas, acts, our emotions which are the form of our experience and result of a meeting of these events with the out world on the border. Thanks to the contact with the out world a person gets experience, forms his own viewpoints and world outlook, organizes his individual scale of values and senses (Mozgovaya, 2002).

An interesting point of view about the borders of personal space belongs to M.M. Bakhtin, who considered that the contact “I am another” defines the development “I am for myself”. He believed, it’s not the thing inside, but that on the border of one’s own and another’s consciousness, “on a threshold” causes development and defines “I”. Each internal experience appears on the border, meeting another one, and all the essence of it is in this intense meeting. According to M. M. Bakhtin the beginning of another’s consciousness defines the border of one’s own consciousness. That is the border “I” is defined through the border of “threshold” of another person’s “I” (Mozgovaya, 2002).

We see the same ideas with M. Buber, who put his thought, that the subtle personal space “I” is formed in the plane “I-you”. It requires filling by another “I”, the closer spatial contact of a person with other people, the more the person we depend on other people in his activity, the less freedom of choice in his activity ways he has. Such understanding of spatial contact tells us about availability of the external control and person’s activity connection (Suroedova, 2009).

Thus, the personal space of a subject has a complex psychological structure, being formed by a person reflected components’ interaction. According to N. N. Mozgovaya’s viewpoint, the personal field carries out a number of complex functions: protective (guarding), representative, regulating, identifying (Mozgovaya, 2010). A number of significant components are indicated by the author in a personal space:

- Spatial (psychological distance, location of partners on communication and interaction, personal space of each of the partners);

- Physical (personal things, an apartment, etc.) and corporal;

- Individual (mental properties and features of an individual, personal style in a way of life, etc.);

- Role (statuses and roles);

–Moral (personal freedom, rights, world outlook, etc.);

–Cognitive (knowledge, conceptions), etc.

N. N. Mozgovaya also supposes that a personal space of a man exists in all stages of ontogenetic development. But it flourishes during the student years of a person. The analysis of the study of a personal space development let specify the conditions of this phenomenon appearance in a student's age: acquisition of the new social status – a student; keeping away from the usual home conditions, school, parents, friends; showing self-sufficiency in money and opinion matters, freedom to control yourself; stabilization of one's own "I" identification; protection of a personal territory and space as keeping of individuality and personal identity; development of an authentic authorship in determination and realization of one's own viewpoint on life and way of life; already formed internal position in relation of history of your people, culture, traditions and denomination, etc.; formed idea about the personal liberties, awareness of your rights and duties, etc. (Mozgovaya, 2002)

The peculiar significance in personal space is given to senses and values of a subject, which being in youthful age undergo overestimation and are in constant progress and dynamics. Values and senses sphere develops due to many factors influences on a forming personality, but it's no doubt an important role is given to communication and personal relationships that penetrate all educational environment of a Higher School (Belousova, 2006).

In an early youth some personal moral ideas on the world outlook level are formed: about life meaning, happiness, a person as the supreme value. An individual becomes capable to make his moral choice. Taking in the values of his environment and then turning them into the objects of values and motivation of his behavior, a person becomes an active subject of social activity.

Values are the interdisciplinary notions, which are the object of concern of philosophers, cultural studies scholars, sociologists, psychologists and teachers. The research of the system of values was made by the following foreign researchers: Sh. Schwarz, M. Weber, F. Znanetskiy, A. Maslow, K. Rodgers, M. Rockich, G. Allport, T. Parsons, U. Thomas, V. Frangle, Z. Freid, A. Fromm, J. Holand, A. Schpranger and others.

The problem of values is studied by the general psychology, social psychology, age and pedagogical psychology as well as in philosophy, social science and other sciences about a man. Thus, the theoretical conception of V. Frangle is based on the recognition of the sense of the basic fundamental formation that determines a person's behavior and attitude. The sense develops through the system of values (creativity, personal concern and attitude).

In home science the problem of values is shown in the research of: A. G. Asmolova, B. G. Ananieva, B. S. Bratus', M. I. Bobneva, O. G. Drobnitskiy, B. I. Dodonov, A. G. Zdravomyslov, B. V. Zeygarnik, M. S. Kon, N. I. Lapin, B. F. Lomov, N. I. Miasitshev, N. I. Nepomniatschaya, N. S. Rozov, N. S. Stolovich, S. G. Jakobson, R. H. Shakurov, V. A. Jádov and many others. The youth's values in conditions of Russian society reformations are analyzed in the researches of: R. L. Rosenbergs, N. A. Nizovskich, E. M. Rakhkovskaya, O. N. Jurechko, 1995; V. V. Kozlovskaya, 1995; S. A. Baklushanskiy, V. S. Sobkin, 1996; A. V. Prokop, M. V. Shmulevskiy, 1997; I. V. Abakumova, R. H. Shakurov, M. G. Rogov, S. P. Dyrin, A. V. Kiriakov, 1998 and others.

3. METHOD

The purpose of the study was revelation of some connection between students' values and their personal field development. In the course of the empiric study,

connected with students' values and senses development, who study in the 2^d – 4th course of the Pedagogical University, some results were got. These results let find out not only their dynamics, but also the development of personal space components.

A high rate of standard ideals characterizes sophomore psychologists. That is they evaluate all values rather high. It characterizes an inconsistent and intra conflict orientation of a person. However, more important here are security and charity, social contacts, which are expressed in good relationship with colleagues, interest in your own harmony and good feeling to your relatives. So one can tell that during this period young people experience diffusion of personal field that, so to say, extends, comes in touch with and then mixes with the fields of other people. Sophomores' personal field doesn't have clear limits, because they need much communication, recognition, understanding and interpersonal contacts.

The basic sphere of sophomores' life is the sphere of "Education and training". This fact lets us tell, that these respondents identify themselves as students, the task of whom is studying and getting professional skills and knowledge. That is the development of the following personal space components takes place at this stage: University, as spatial, knowledge, experience and skills as cognitive, student's status as role and individual.

4. RESULTS AND DISCUSSION

Third-year students – psychologists pay more attention to the pleasures of life, individual priorities. They experience egoistical orientation, which is expressed in domination and leadership. The most significant value in this period of studying is hedonism and achievement. This fact allows us to state that at this stage formation and development accent is made on an individual and moral component of personal

space. The main spheres of life are "Training and education," "Professional life".

For the fourth year students - psychologists a high level of standard ideals is typical. That characterizes an inconsistent and intra conflict orientation of the personality. The most significant is the sphere of professional life. It allows us to say that fourth year respondents have an introduction to their profession and a self - identification not only with a role of the student, but already the professional in his or her sphere with the prevalence of spiritual needs over material. That is there a further development of such components of personal space, as role and moral.

So, we can tell that the 2^d – 4th year students - psychologists have dynamics of values, in the course of training in Pedagogical University value of students undergo some transformations. By the end of studying (fourth year) the respondents become more benevolent, responsible, and indulgent, then they were in the second year. The need for interaction with close people also increases. Friendship and personal well-being acquire a great meaning. Being the fourth year students - psychologists became more disciplined, polite, reserved with more respect to their parents and seniors. They follow traditions and standards of behavior with special responsibility. During the years of studying in Pedagogical University, the respondents have the increase in values rates, stimulation, traditions and conformity each year.

Students become more constrained in their behavior. They pay considerable attention to keeping their traditions and social norms. The formed in the course of their professionalizing universal values become a great significance for graduates. There is a dynamics in students' personal person. Different components of personal space dominate and are transformed in different periods. However, it's worth saying that values and meanings literally penetrate all components, becoming thus a core both for the personality and for her space (Suroedova, 2009).

The data of sense communication of Pedagogical University students' values researches prove that, values and meanings get into all life spheres of a person and are shown in personal space (Belousova, 2002). During the empirical research, the students were asked to convey the meaning of their personal value that is the main for them. All the texts went through processing and content analysis. Let us give an example of the content analysis of texts about value "health".

During the content analysis of respondents' texts about value "health" 20 semantic units were singled out. Then they were grouped: the first group contained all semantic units expressing assessment and attitude to the value of health; the second group included the semantic units, related to a person's activity development; the third group contained the semantic units, belong to the emotional sphere of a person (Suroedova, 2009).

1. The assessment of value and expression of attitude to it. All participants of the experiment (100%), compiling the sense of value "health", assess it and express their attitude to it with the following into words and expressions: "important, very important, the most important", "main", "the most great value", "takes the first place", "is of great importance". These data allow us to say that such a value as "health" is central and main for examinees. In addition, importance of health is noted not only concerning itself, but also for all people. According to students' opinion, the value "health", being the main in the valuable and semantic sphere of the research's participants also has a close connection with other values. For example, the respondents specify that health influence the existence and quality of such values as "work, profession", "study", "kindred, relatives, family". Thus, the value "health" being the most important and central with these respondents, so to say "feeds" other values, supports them, has a certain impact on them, and defines their existence and quality with a person.

2. A person's life activity and development. In process of sense delivering 50% of student note, that the value "health" influences their ability "to study", "to work", "to build a career", "to support themselves ". In speech the frequency of use of the keywords ("study", "work", "career", "financial security") says that these words aren't simply connected with the value "health". These are not only the words entering respondents' "semantic fund" or "semantic space", but the words, being used by the respondents for denotation of values. Frequency of the values use of the words "study", "work", "career", "development" in experiment participants' stories also tells that they are strategically significant in activity and self-realization of a person. It should be noted that the value "development" is considered by respondents together with study or work and profession, and is an integral component of these values. As the experiment participants (25%) specify the value "health" is closely connected with a person's development. Thus, according to respondents the value "health" influences such components of personal space (Mozgovaya, 2002) as cognitive, physical and role. For some part of respondents having such a value as "health" (25%) is connected with the opportunity "to have a rest", "to have fun", "to travel", "to meet their friends". In this case, we can say that possessing the value "health" influences such a vital aspect of people as interpersonal communication, friendly relationship. That is the value "health" determines the existence and formation of a personal space spatial component. Thus, the qualitative analysis made it possible for us to state the following: the value "health" gets the centrality characteristic in interconnection with the main types of a person's activity (study and work), with the sphere of communication and relationship and person's development that is, specifies cognitive, physical, spatial and role components of a personal space.

3. Emotional sphere of a person. For examinees' the centrality and importance of the value "health" is shown in interrelation with the emotional sphere of a person, his health. 41% of the interrogated young people consider that existence of health allows people "to look well", "to feel good (normally, intact, and confidently)", and "to feel harmony and relief". Consequently, the interrogated ascertain a connection between existence of health and well-being and a person's mood that is the value "health" effects the formation of individual and moral components of a personal space. During the content analysis of protocols' texts, the following was stated: the respondents, revealing the meaning of the value "health", determine the role (functions) of health in human life.

4. A half of respondents (50%) tell that «it is difficult to live without it, there will be nothing without it », and 33% of interrogated consider that possessing the value "health" helps "to achieve result" and a person "will be able to do everything". Also during the process of sense rendering the respondents, specify a close connection between the value "health" and the important parts of a person's activity and their success: study, work, communication, development. These data allow us to tell about an instrumental role of the value "health", about health as a means of achievement of aims and results.

5. According to the respondents, the value "health" needs support, care, consideration, etc. This information is known to have been handed down within several centuries and was recorded in speech stamps, proverbs and sayings. For example, the majority of respondents (75%), telling about this value, use the following verbs: "to look after", "to care", "to treat", "to take care of", "keep", "think of", "to worry about", "to pay attention to". In these expressions one can note a person's attitude to the value "health". These data allow us to state the terminal function of health — health as the sense one should strive for.

6. Young people note that it is necessary to look after not only your own health, but also "a state of this value" with relatives, friends and children. These statements allow us "to see" the attitude of respondents towards other people, close ones and relatives, through the attitude to the value "health" with important people. In other words, the people showing care about health of their relatives automatically include them in their psychological situation. Or, the importance and value of "another" in a person's life (of experiment participants), determines its valuable attitude to another's health. As the content - analysis of respondents' messages revealed, the value of one's own health is equated to another person's value of health and sometimes is estimated above your own health (it is peculiar to women). It allows to single out the function of expression of attitude to other people through maintenance of value of health.

7. 8% of respondent note that they possess this value, and 25% say: "I have problems with it ".

5. CONCLUSION

Thus, it was stated that in examinees' messages about the value "health" three groups of keywords and expressions (semantic units) are used: assessment of value and attitude to it, life activity of a person and his development, emotional sphere of a person. In the process of sense rendering all participants of the experiment disclosing the sense of value "health", first of all, highly appreciate this value and regard it as significant and necessary, thereby, giving it a leading value, in the valuable and semantic sphere. Besides, through revealing of sense of the value "health" as a leading and main value in human life, strategically important values of a subject and at the same time their close interrelation with health disclose. Strategically important values for the respondents of this selection

are: work (profession, career), study, communication, development. Also it was established that, The value "health" was also stated to perform some functions for the majority of the study's participants: instrumental (a value is necessary for...), terminal or sense bearing (it is necessary to strive for it), and attitude's expression to important people.

Thus, the presented above data of empirical research allowed to reveal that a person's values have a forming impact on all the components of a personal space. Values play a significant role in development of all spheres of life activity of a person and leave "a mark" on the components of a personal space.

REFERENCE

- Abramova G. S. (1998). *Praktikum po vozrastnoj psixologii*. Moscow: Akademij.
- Beloysova A. K. (2002). *Samoorganizatsja sovместnoj myslitel'noj dejatel'nosti*. Rostov-na-Dony: RGPU.
- Beloysova A.K. (2006). *Smysloperedacha v obshchsenii*. Moscow: RAO.
- Levin K. (1973). *The sanction of the social conflicts*. St. Petersburg: Sensor
- Mozgovaja N. N. (2002). *Razvitie predstavlenij o lichnostnom prostranstve studentov pedagogicheskogo vuza*. Stavropol'.
- Mozgovaja N. N. (2010). *Lichnostnoe prostranstvo, kak predmet issledovanija*. Rostov-na-Dony: PI YFU.
- Parygin B. D. (1999). *Anatomija obshchenija*. St. Petersburg: "Mixajlov V.A."
- Pisachkin V. A. (1997). *Sotsiologija zhiznennogo prostranstva*. Saransk.
- Suroedova E. A. (2009). *Smysly i smysloperedacha v obrazovatel'nom prostranstve*. Rostov-na-Dony: DGTU.

LINGUISTIC MANIPULATION: DEFINITION AND TYPES

Dr. Akopova Asya, Department of the English Language of the Humanitarian Faculties,
South Federal University, Russia, Rostov-on-Don
E-mail: rsu-akopova@yandex.ru

Abstract: The article touches upon basic aspects of the theory of speech acts that is defined as influence exercised upon a human being or a group of people through speech and related non-verbal means by the speaker in order to achieve definite aims, i.e. to change the listener's behavior, his mental set, intentions, perceptions, evaluations, etc. in the course of verbal interaction.

Keywords: theory of speech manipulation, intentional manipulation, non-intentional manipulation, communication, legal linguistics.

Manipulation is linguistic term with great creative potential that is first and foremost topical in the framework of the theory of linguistic manipulation. The wide and somewhat blurred semantic field of the term "manipulation" includes such key elements as "negative" intention of the speaker and covert (not evident for the listener) character of influence. Manipulative functions of discourse create covert, masked layer of linguistic data that is not easily separated from purely informational content. Depending on the character of utterance (its orientation towards past or future), more importance is attached to either confirmation with objective reality (if the topic of interaction touches upon something that has already happened) or to the pragmatic factor (frankness of the speaker whose speech is associated with the future).

Language mechanisms operating the processes of speech manipulation have appeared spontaneously, as the language itself to a certain degree facilitates distortion of objective reality offering not only specific designations, but also imprecise, blurred, ambiguous denominations. Manipulative discourse takes position between two extreme points – the legitimate (true, full) information and a lie. A lie and ma-

nipulation are opposed to different types of truth: a lie stands up against "semantic truth"; manipulation opposes "pragmatic truth".

Manipulation is realized when the listener cannot see the speaker's covered intentions behind what is actually being said. As one of the key parameters of manipulative utterance is specific intentionality, in order to discriminate manipulation, one has to analyze such parameters as aim of verbal communication, communicative intention, reason, and motive. Manipulation is pragmatic aspect that achieves its goals without evident detection of communicative intention: the speaker wittingly chooses such form of utterance that lacks direct signals of his intentional condition. By increasing the level of inadequate perception of information field, manipulation widens illusionary subjective reality. Manipulation is negative social psychological phenomenon exercising destructive effect upon an individual and the society as a whole.

Verbal manipulation can be stretched in time presenting both a complex, multi-stage, phase-by-phase procedure (as in case of informational propaganda and project promotion companies), or it can be a singular, relatively simple act of influencing the recipient in the course of interpersonal communication. Vicarious character of manipulation preconditions guidance by such linguistic units and categories as foreign (lacking inner form) words, euphemisms, figures of speech of different content and composition. At that, proper linguistic characteristics of distinctiveness of manipulative discourse are difficult to identify, as generally they do not trespass the framework of regular speech practice.

Active usage of manipulative discourse of certain grammatical forms and syntactic constructions does not create specific “manipulative grammar”, as the same linguistic means are used to fulfill other functions. At the same time, consideration of linguistic means typical for manipulative texts is important for identification of the fact of manipulation. A discourse becomes manipulative not due to usage of specific lexical or grammatical units, but, first and foremost, through association with the speaker’s intentions, unclear influential character of the utterance, conditions of communication (social context). Language offers to speakers a whole arsenal of means to realize manipulative aims. Linguistic manipulation is marked by language signs of different levels that help interpret the speaker’s intentions.

Manipulative influence refers to problems of linguistic legal framework. Estimation of legal force of linguistic phenomena, which is the object of a new complex discipline called legal linguistics, has to be extended to the concept of manipulation. Until recently methods of manipulation (in political discourse, advertisements or horoscopes published in the media) help avoid exposure and appliance of legal sanctions. Legal settlement of conflicts is hindered due to unexploited and unsystematic character of manipulative side of the language, absence of specialized vocabulary that would describe manipulative techniques, as well as legal mechanisms, that would take into account both spontaneous patterns of a natural language and the system of legal regulations. Similar to diagnosis of direct lie opposed to ontological truth, one can diagnose manipulation opposing epistemological truth. As semantic destruction as a method of manipulation impairs participants of election campaign, and unprincipled advertisement harms product consumers, this can and should become subject of legal linguistics.

Lexicographic genre, being a special means of linguistic understanding of language phenomena, is able to accumulate

such concept as manipulation. A dictionary of manipulative techniques should contain distribution analysis of the name “manipulation”, description of concepts actualized through manipulation strategies and a list of manipulative techniques with thorough presentation of split-level language means of their realization.

Supposedly, exclusion of manipulative component from modern political practices will facilitate assertion of truly democratic political culture. Collaborating, dialogical and liberal communication centered around absolute revelation of intentions and arguments, can become antipode of manipulative influence. In the conditions of democratization of society, mechanisms of manipulative influence carried out by the media should be made clear and transparent through elaboration of criteria that could be used to discriminate corresponding suggestive techniques.

Linguistic manipulation in a broad sense is any verbal interaction regarded from the point of view of its motivation and realized by the subject (speaker) and the object (listener) of communication. A subject of communication regulates behavior of his interlocutor through speech, stimulating him to commence, alter or accomplish an action whenever the need arises. The speaker can either stimulate proper responsive verbal or non-verbal action, or exercise indirect influence in order to mould certain emotions and perceptions required by the speaker. In the long run, these perceptions are supposed to organize such behavior on the part of the listener that the speaker was aiming for. By exercising influence upon a person, we aspire to mould his behavior to suit our needs.

Oral presentation of information is an important aspect of linguistic influence. In case of a written text it is easier for the reader to discern inserted influence, as a text is always at hand and can be revised and contemplated. This is impossible when dealing with oral information. In order to grasp the meaning of every word in the context and think while listening to a se-

quence of oral messages, one needs time which is often deficient. Thus, if separate words are intentionally stressed and if speech is structured with a definite aim, oral information can exert greater influence than written text.

Summing up what has been said, we can conclude that linguistic manipulation is influence exercised by one person upon another or a group of people through speech and non-verbal means oriented toward achieving a certain goal that consists in changing of the addressee's behavior, perceptions and intentions in the course of communicative interaction.

Manipulation of consciousness and behavior presupposes existence of a subject and an object of manipulation, influence upon the listener's motivation sphere. These and other factors create foundation for basic classification types of linguistic manipulation highlighted in linguistic literature and works in the field of psychology.

Depending on the sphere of mental activity participating and dominating in the process of communication, linguistic manipulation is divided into rational and emotional. In his attempts to influence interlocutor's behavior, the speaker can affect his rational sphere. To do this he uses convincing facts and arguments impacting people's consciousness. The aim of emotional manipulation is expression of the speaker's emotions and acquisition of responsive emotional reaction from the listener that would lead to changes in his behavior. There are two types of emotional manipulation: indirect (i.e. realized through original appeal towards the rational side of the listener) and indirect (i.e. realized through creation of figurativeness, various fault in logical thinking).

According to the character of subject-object interaction, manipulation can be direct (i.e. the subject is openly presenting his demands to the object of manipulation) an indirect (i.e. manipulation directed at the environment rather than at the object). Direct method of linguistic manipulation includes such forms of the language

system that are associated with certain meaning directly expressing corresponding illocution, i.e. communicative aim of the speaker. Thus, for example, declarative and interrogative utterances are conditionally connected with illocutionary forces of a message. Indirect method of expression of communicative intention presupposes usage of language forms to express illocution force not connected with their direct linguistic meaning. Indirect forms do not openly express the speaker's intentions.

According to awareness of linguistic actions, manipulation can be *intentional* and *non-intentional*. In case of intentional linguistic manipulation, the subject aims at a definite result on the part of the object of manipulation. Non-intentional linguistic manipulation is exercised involuntarily, as the subject does not aim at achieving results from the listener.

According to the type of linguistic action, manipulation can be:

- *social* (social non-informational speech acts with clichés in the form of greetings, oaths, prayers);
- *volitional* (speech acts of following the speaker's will in the form of orders, requests, refusals, advice, etc.);
- *informational and estimative* (speech acts setting public moral, legal, interpersonal emotional relations in the form of reprobation, praise, accusation, insult, threat).

Perlocutionary criterion (addressee's reaction) presents basis for discrimination of the following types of linguistic manipulation:

- *evaluative* (changing of the subject-object relation, connotative meaning of the object for the subject);
- *emotional* (formation of general emotional mood);
- *rational* (reconstruction of categorical structure of individual conscience, introduction of new categories).

According to orientation towards the interlocutor, manipulation can be *person-oriented* and *society-oriented*.

Person-oriented linguistic manipulation is directed towards the listener by the speaker who constructs the image of his interlocutor in order to achieve the desired effect.

In case of society-oriented manipulation, the speaker doesn't construct the image of a separate listener, but creates generalized image of a group as a whole.

Every type of linguistic manipulation can facilitate regulation of interlocutor's activity and change his behavior.

The process of construction of the theory of linguistic manipulation presupposes differentiation of manipulative and actualizing manipulation, on the one hand, and productive and non-productive manipulation, on the other hand. Such differentiation of manipulation means in the framework of communication takes the form of hierarchy reflecting various levels of communicative skill in language usage. Non-productive manipulation is presented as the bottom of hierarchy, while speech actualization is situated at the top.

In psychology the term "manipulation" is defined as type of psychological affection, which in case of skillful realization leads to implicit provocation of another person's intentions that do not correspond to his actual wishes and his stimulation towards commitment of actions required by the manipulator.

Linguistic manipulation is based upon mechanisms that compel the listener to perceive verbal messages uncritically and facilitate creation of illusions and misperceptions impacting addressee's emotions and making him accomplish actions advantageous for the speaker.

Non-productive form of manipulative affection is associated with the desire to covertly influence the interlocutor's consciousness in order to frustrate him, i.e. impart psychological discomfort. In other words, non-productive manipulation is linguistic action aimed at manifestation of supremacy over the interlocutor through demonstration of his imperfection, inferiority,

which leads to submission to the speaker's demands.

The aim of productive manipulation is to win communicative partner and manipulate his behavior through exploitation of his weaknesses. In this case, initiator of communication becomes a voluntary donor who positions his interlocutor in the situation of social welfare, status superiority. The easiest means of manipulation are compliment and flattery.

Both productive and non-productive manipulation of addressee's behavior presupposes influence upon his emotional sphere as opposed to other forms of reinforcement of volition appealing to the rational sphere.

The highest form of linguistic interaction and manipulation is communication on cooperative actualizing level that is the optimal alternative of effective communication. The basic behavioral parameter of the agent of actualization is respect of interlocutor's individuality, principal equality and openness of manipulation techniques. Actualizing communication is based upon desire to arise the listener's sympathy.

It should be noted that mastering of actualizing communication is not an easy task. Thus, in everyday life manipulative forms are predominant.

REFERENCES

- Dotsenko E. (1997). Psychology of Manipulation: Phenomena, Mechanisms and Protection. *Chero Publishing*. Moscow.
- Issers O. (2002). Communicative Strategies and Tactics of the Russian Speech. *URSS Editorial Press*. Moscow.
- Leontyev A. (1981). Psychological Peculiarities of a Lecturer. *Knowledge Press*. Moscow.
- Pocheptsov G. (1987). Communicative Aspects of Semantics. *High School Publishing*. Kiev.
- Slobin D., Greene J. (1976). Psycholinguistics. *Progress Publishing*. Moscow.
- Tarasov E. (1990). Linguistic Manipulation: Methodology and Theory, *Optimization of linguistic*

manipulation. Moscow University Press. Moscow.

Thomas J. (1995). *Meaning in Interaction. An Introduction to Pragmatics*. Pearson Education. London.

Zhura V. (2000). *Emotional Deixis in Verbal Behavior of an English-speaking Individual*. Volgograd University Press. Volgograd.

PEDAGOGICAL AND PSYCHOLOGICAL BASIS OF MORAL EDUCATION

Dr. Aneta Barakoska, Faculty of Philosophy, University St. Cyril and Methodius, Skopje, Republic of Macedonia

E-mail: aneta@fzf.ukim.edu.mk

MSc Aneta Jovkovska, Orthodox Faculty of Theology, University St. Cyril and Methodius, Skopje, Republic of Macedonia

E-mail: ajovkovska@yahoo.com

Abstract: Analyses of pedagogical and psychological literature show that education and upbringing are oriented to nursing moral values. In pedagogy's historical context, the most important goals are education, development, and self-development of life experience and student's perception of efforts to build values in their own life.

In different historical periods, different moral values appear in the society. They are united by being directed towards humanism and on the basis of personal experience they represent completeness of general principles and norms of student's behavior towards other people, nature, society and towards student's themselves in the name of the common good. The already formed moral values have regulatory function in student's life.

The research problem is connected with humanization of the educational process.

Keywords: moral, development, values, upbringing, behavior, orientations, student, religion, society.

1. INTRODUCTION

The practice of upbringing and education of individual's personality is deeply rooted in human's civilization. In the education and development of an individual's personality, a specific place is taken by the internal spiritual and moral values. Values and ideals are closely connected to historical factors. As the syllabus of the moral contents subjects changed, so did the idea of the values and ideals. However, religion and philosophy support the idea that in people, besides the formation change, many common things, kept thousands of years and handed down from generation to generation, still remain. Those moral norms which have been tested by the time become universal spiritual and moral values.

2. PEDAGOGICAL BASIS OF THE MORAL EDUCATION

In folk pedagogy, moral education takes very important place. Through mediation of oral folk tradition (art), moral ideals, which played a major role in the education of young generations, were transferred. 'In ancient educational school a student was not brought up only by the lectures he attended, but he gained much more knowledge through the moral atmosphere he absorbed. Not only during the lecturing but constantly, did he absorbed information, attitudes, emotions and habits', (Ключевский, 1987: 227). Development of moral values was greatly influenced by the environment, customs and living examples. The school for development of spiritual values was the church in which contents with moral and religious character were taught.

The establishment of the pedagogy as a science is closely related to the Czech pedagogue John Amos Comenius. Many of the ideas connected to the moral education are expressed in his work *Great Didactic* and they haven't lost their importance and relevance even today. Taking into consideration the philosophical thoughts on the virtues of Plato and Aristotle, Jan Amos Comenius thought of wisdom, restraint, courage, and righteousness as basic virtues. According to these virtues, Comenius advised students to develop modesty, obedience, benevolence towards others, punctuality, courtesy, respect and diligence. As means of moral education, he considered the example of parents, teachers, peers,

lessons with moral contents, sermons, practice (tutorials) in children's moral behavior, the struggle against immorality, laziness, mindlessness, and problems with discipline. In the process of moral upbringing, he pointed out the great importance of the development of positive habits, (Коменский, 1982: 229-237).

John Locke, English philosopher and pedagogue, in his major work *Some Thoughts Concerning Education*, considering the moral upbringing, gives great significance to emotions, willingness, imagination, as well as the stimulating motives of moral education. Locke considered goodwill, humane behavior towards people, righteousness and mercifulness basic moral values.

French scholars from the XVIII century, Denis Diderot, Paul-Henri d'Holbach, Claude Adrien Helvétius and Jean-Jacques Rousseau fought uncompromisingly against dogmatism. Rousseau's teaching is established on the idea of natural perfection of children by which he initiated the appearance of the theory of "natural education" in pedagogy; upbringing of good emotions, good reasoning, and good will.

Johann Heinrich Pestalozzi in his work *Leonard and Gertrude* developed ideas for the humane character of education and friendly relationship towards students, instilling in them a sense of empathy and mercifulness as foundation of moral education. Active love towards people and good will towards others are the things that should lead people to moral development. Students develop morality by continual practice in good deeds. Actually, the foundations of children's moral behavior are created in family. Pestalozzi insisted that students' moral behavior is not shaped through moralization, but it forms thanks to the development of moral emotions and creation of students' moral affinities (Харламов, 1999: 19).

J. F. Herbart tried to develop a system of pedagogical sciences based on the idealistic philosophy. Herbart's central thesis of thinking is formation of moral

person by means of deterring from the bad, leading to good, moralizing and belief in the abilities to react in a good way. The pedagogical theory of moral education was further developed by Adolph Diesterweg. His theory was based on student's acquaintance with scientific knowledge and instilling in them high moral qualities.

Epiphanius Slavinsky and S. Polotsky as a major factor of the moral education, considered the example of parents and teachers who teach children right behavior in the family and at school. A. PROKOPOVICH-ANTONOVSKY calls the highest value morality, which is achieved through mind enlightenment and upbringing of heart. Alexander Herzen stressed out providing conditions for free development of student's personality. Nikolay Pirogov in his work *Questions of Life* formed the major principles of moral upbringing and according to him 'morality can be improved by means of moral action and with the help of moral measures' (Сластенин etc., 200: 41-42).

Konstantin Ushinsky developed further Pirogov's idea of moral upbringing and tried to track the mechanisms that form students' moral world. He noted: 'we boldly express the belief that influence on morality is the major mission of education and is much more important than the development of intellectual capabilities, acquaintance of knowledge and clarification of students' personal interests' (Ушинский, 1953:251). According to Ushinsky, moral upbringing should develop in a student humanism, honesty and righteousness, diligence, discipline and sense of responsibility, self-esteem and self-respect combined with modesty. Ushinsky claimed that morality is spiritual and therefore it is a virtue.

Orthodox religious pedagogy takes a special place in the research: A. Radovich, I. Andreevsky, N. Berdjaev, P. Vahterov, V. Zenkovsky, N. Lossky, V. Rozanov, S. Franck etc. held the view that morality is basic and qualitative virtue of education. The most prominent representative of this

movement is V. Zenkovsky. His theoretical and methodological work spans from unconventional humanistic pedagogy to orthodox pedagogy, which is spiritually oriented and represents the basis of Christian anthropology. 'Spiritual tenet in human is the root and source of human's individuality and a source of his uniqueness', said Zenkovsky (Зеньковский, 1997: 169). Numerous representatives of religious orthodox pedagogy hold the viewpoint of Christian anthropology (N. Berdjaev, V. Rozanov etc.) and have tried to unite the achievements of culture and humanistic paradigm with Orthodoxy.

Ushinsky's humanistic views had a huge impact on the development of pedagogical theory and practice in the late XIX century and early XX century. The idea of "natural education" which was advocated by L. Tolstoy, A. Zelenko, K. Wentzel, I. Logunov etc. continued to develop. Wentzel claimed that the objective of moral education is not the "good idea", but the ability to awaken the unique moral will and moral creativity in a child (Вентцель, 1912: 119).

In accordance with Wentzel's claim, primary goal of upbringing can be neither religion nor society, not even culture in general, but the student's own way (same 390). 'Every student must be by himself a measure of justice and truth, because any other measure is false, immoral and not in accordance with the freedom of an individual person', wrote Wentzel (Вентцель 1908: 13).

In N. Krupskaya's research for the problematic of morality, the moral is observed from a position of dialectic materialism united with the general collective goals and obligations. She stresses out several times that the contents of the social work should not be solely of social importance, but to be taken into consideration as an ability to get deeply into the emotional sphere of the students in order to 'unite them in a common experience and emotion' (Крупская, 1959: 158). In her opinion, unity upbringing has to be con-

nected with upbringing for comprehensive development, so internally disciplined person has to be capable of deep emotions, clear thinking and organized action (same, 159).

Sukhomlynsky's works have great impact on the formation of students' moral values. In his opinion, 'we should strive to identify the understanding and emotion of every single student's moral ideal which is: my personal dignity is to make good deeds and not to do any harm to other people (Сухомлинский, 1961: 6). Sukhomlynsky's attitudes that moral values of a person in the adolescence are structured in the span of his ideological components are of great importance for this research: 'In the years of adolescence the students are introduced to the world of ideas. An adolescent starts to philosophize- to think within wide social and political moral concepts' (Сепреева, 2000: 220). Sukhomlynsky had proven the ability of practical usage and development of student's moral values, revealed the contents of high-school student's moral values and researched discrepancies in moral development; showing the way how they should be surpassed in the upbringing and educational process. In his view, moral values 'live, develop and sharpen only by an active action. Through the mutual relationships in the class every student is obliged to prove and to confirm that together with the truth his dignity and honor are sharpened' (Бондаревская, 1979: 58). Nevertheless, moral education until the XX century had a class character. Meaning of life was incorporated into the claim that an individual's life is not worthy by itself, but just as means to satisfy society's class interests.

Between the 50s and the 60s of the XX century, pedagogical science tried to reveal theoretical ideas connected to student's individuality, although the student's individuality was still in the background. At the same time, reality showed that not everything is smooth in the upbringing and the educational process (M. Danilov, V. Korotov, M. Mahmutov). The period be-

tween the 70s and the 80s of the XX century is characterized by rising interest in studying the problems concerning upbringing and education. Some aspects like morality of a student, their individuality and uniqueness are included into the educational goals (B. Ananyev, E. Bondarevskaya, Z. Vasileva, P. Znakov, T. Konnikova, I. Marenko, K. Radina etc.).

I. Marenko examines the problem of moral education through the category 'person's behavior'. He proposes that one should consider the attitude of a student towards learning, work, public domain (society), and community; to himself and to other people. Marenko indicates the major role of subjective behavior in the mechanisms that regulate moral behavior of students. As he points out, in formation and development of student's personality an important implication has the accumulation of experience in moral behavior, which includes intellect, emotions and will. Experience in moral behavior is a condition for realization of the mode of action and treatment at every stage of upbringing. These relations must be of high moral standards and must contribute to the development of the students' ideal, (Марьенко, 1985:62).

In his research, K. Radina first revealed the link between students' moral feelings and students' behavior. He introduced the term "emotional and moral orientation" in the educational theory (according to Бондаревская, 1979: 33). Considering Radina's surveys we believe that it is possible to think of emotional and moral orientation as a mechanism of adolescents' moral education, and at the same time this orientation to be viewed as a moral self-regulation of behavior.

In T. Konnikova's and her students' concept, moral upbringing of person is a process of serial adoption of social norms and moral principles accepted in society and objectively presented to students, through proper moral example for formation of moral values. The importance of Konnikova's work is that she investigated

the role of the community (collective, class) in the moral formation of student's personality. In her opinion, it is necessary to build a relationship between students and environment and their communication and activity to be organized in such a way, that the students would continue to live in a system of relations which corresponds to moral values, (Конникова, 1957: 124).

Z. Vasileva developed Konnikova's idea of person's moral orientation and emphasized the following practical aspects of manifestation of moral orientation: action (responsible behavior of students to a student) humanity (compassion, wishing well for others, willingness to help, empathy, and joy for others' success), unity (collective responsibility in teaching and social action, positive attitude towards cooperation, looking for joint solutions). Vasileva's research is significant for us because the author presents the concept of morality outside motives, and links it with integrated characteristics of a person such as beliefs, person's moral position in the community and humaneness, (Валицкая, 2011: 3 - 7). Vasileva is one of the first who considers that in the moral education of adolescents a complex pedagogical supports necessary. She proved that upbringing and educational activities appear as a source of moral values.

Furthermore, in most research, moral upbringing is viewed as the most important goal in the process of person's upbringing (E. Bondarevskaya, Z. Vasileva, I. Marenko, L. Novikova etc.). Theory and practice of moral upbringing discover fundamentally new positions in solving the problem 'collective and person' in a sense of raising person's status, (L. Novikova, B. Likhachev).

The period concerned is characterized with person-oriented approach in upbringing. E. Bondarevskaya, believes that moral upbringing of a person brings basic character in modern education. Moral education is understood as a creation of the human himself as a cultural creation, as improvement and cultural transformation

of society (Бондаре-вская, 2000: 96). In her opinion, recognizing and living in accordance with moral imperatives should represent one continual line from the first to the last grade.

Important aspect of Bondarevskaya's research affects moral awareness, which she considers a process of reflection and adoption of social norms expressed in moral ideas, concepts, principles, laws and on their basis development of moral attitudes, feelings, behaviors and beliefs that act as criteria for moral evaluation, self-assessment and mechanisms of behavior's self-regulation (Власова, 1999: 61). It is significant person's moral orientation to be in unity with students' life, which results in adoption of moral values. In this way, an adolescent becomes open to compassion, helping others, doing good deeds, mercifulness, care for the close people and humanitarian work. Bondarevskaya thinks that moral education doesn't appear only in the sphere of person's interests and their own development. Inside the person, the interests of the individual, family, society, and state collide and mutually act with each other. In this sense, the fundamental question is how to teach students to live by combining their interests with the interests of the family, society and state. However, the author emphasizes that students' self-development interests should be placed in the foreground. In that way the idea of moral education as a moral imperative, criteria for self-assessment and self-regulation of behaviors revived. Bondarevskaya defines moral upbringing as moral value that forms through education, development and self-development of life experience and student's shaped efforts.

Thus, moral education is understood as a deliberate, organized, and pedagogically managed process with the moral development of a person in a community performing a leading role in the formation of the person's moral consciousness and ensuring his unity with the behavior. Actually, it is a process in which the student develops as a complete person, as a subject

of moral relations and moral practice, during which their creative powers and abilities for the benefit of the society are developed and applied. Thereby, his spiritual qualities that are essential for communication and acting in the community are formed, (same 15 -16). In connection to the problem of moral education S. Kulnevich supports an interesting position for us. According to him, education is moral when it relates to the humane i.e. the human principle in a student. He considers main moral values those which determine the spiritual basis of a person: subjectivity, consciousness, soul, sensory experiences, knowledge, identity structure, person's functions and personal experience of an individual, (Кульневич С., Лакоценина, 2001: 5).

T. Vlasova developed the idea of Bondarevskaya and paid more attention to the formation of spirituality in a person. She treated moral upbringing as 'person's vector orientation' and morality as 'the limit of human's personal action in various situations'. Vlasova looks at education as a basic moral value of the person in order to acquire knowledge of good, beauty, and truth. The good appears as an indicator of the spiritual and moral development of the student's individuality for benefit of man and society; the good is presented as a beautiful harmony manifesting person's individual qualities and abilities; the truth acts like a guarantee for individual and creative self-realization in the overall structure of social righteousness, (Власова, 1999: 98-103).

Ravkin's study which occurs as a result of constructive and genetic approach is also of great interest to us. He distinguishes four groups of values which have humanistic orientation. The following moral values are included among them: honor and dignity of a student, his right to be subject of pedagogical process, ethical motives for acquiring knowledge, patriotism, respect of others labor, ethics of behavior and learning, mutual support and

willingness to cooperate (Равкин, 1995: 88-90).

An important problem in moral education is the issue of discovering mechanisms of moral education and their formation in students. According to V. Nikolina, there are five stages of spiritual and moral upbringing in students. Those interrelated stages in the process of formation of spiritual and moral values simultaneously include cognitive, emotional and willing elements. On the one hand they are part of the cognitive sphere of their own "I" and on the other hand, they are part of meaningful and creative acts for understanding the world and adoption of values (Николина, 2002: 85).

N. Shturkova emphasizes three factors which affect the formation of values in upbringing and educational process, 'choice-orientation- living':

- demonstration of value's choice when a student has multiple alternatives to choose from; to pick up good, truth and beauty in all manifestations besides the presence of evil, lies and ugliness;

- value oriented action in every single interaction between the student and the environment;

- student's life filled up with values which are expressed when he enters into a mutual relationship with the environment.

Shturkova singles out the following as top values: freedom, happiness, conscience, equality, right-eousness, brotherhood, labor, knowledge, communication, play, goodness, truth, beauty, life, nature, society (according to Харламов, 1999: 35).

V. Vorontsova's, M. Kazakina's and A. Kiryakova's research indicate that values have a regulatory function in people's lives. They have individual meaning and therefore form an eternal layer incultural heritage and determine the characteristics of the view of the world. The values are directly related to moral education and create a separate group of moral values. Based on the analyses of

pedagogical literature we can determine the basic characteristics of moral values:

- focused on the upbringing of the core of a person (Петракова Т.);

- based on the foundation of personal experience (Бондаревская Е., Василева З.);

- directed towards the complete personality of an individual- his mind, will, emotions;

- represent totality of general principles of human behavior, in the relationship of an individual to others, with the nature and society 'in the name of the good, honest, useful, since we are also required to act in this way as human beings, citizens and members of a family' (Дал В.);

- moral values' meaning increases with the regulation of all complex interpersonal relationships.

V. Andreev studies the term moral values through the ideal which includes in itself:

- introduction of the finest positive and attractive models of people for us;

- normative and desirable models of people in accordance with the notion of personal characteristics and qualities which should be referred to as the ultimate goal of development (self-development) of the person (Андреев, 2009: 132).

3. PSYCHOLOGICAL BASIS OF MORAL EDUCATION

Important and interesting evidence supporting this problematic is found in Gestalt psychology whose main contribution is the finding that perception is an active function. This feature appears organized, not just as simple registration of external stimuli.

S. Freud's theory of personality is of particular importance. According to Freud, there is a strong evidence that delicate and difficult work which requires deep and intensive thinking can occur outside the do-

main of human consciousness, 'in which self-criticism and conscience remain unaware causing the most important procedures', (Фройд, 1986: 194). Freud's idea fundamentally changed the view of humans, themselves. Furthermore, famous scientists A. Adler, K. Jung, K. Horney, G. Sullivan, E. From etc. were able to implement the idea of psychoanalysis in their activities which resulted in the appearance of Neo-Freudainism as a new direction in psychology.

A. Adler claimed that in the first five years of child's life a deep sense of inferiority which the child attempts to overcome is expressed. Despite the inferiority complex, the child in the first five years of life shows tendency towards creative self-improvement. Under the influence of a given purpose in human life, specific perception of reality develops: images, memory, certain traits of character, inclinations and abilities, moral character, emotions and feelings are formed, (Гемов, 1999: 321). Students' education is directed towards social values and according to Adler, it is very important for maintaining and strengthening society's social values.

K. Jung developed another psychological concept called 'analytical psychology'. According to this concept the psyche is a complex totality made up of relatively independent parts which had originally been separated from each other. In Jung's view, 'the psyche is superior compared to consciousness and it's a prerequisite for consciousness' (Юнг, 1997, 213). Jung differentiated between three levels of the psyche: consciousness, personal unconsciousness and collective unconsciousness; the latest referred to as not individual, but general human and general life time representing a foundation of an individual psyche (same 219).

The problem of moral education would be incompletely treated if we don't analyze the psychological ideas of humanistic psychology representatives, aimed at the problem of individual existence in the world and focused on

personal orientation and development of an individual. Such views are present in the works of E. From, A. Maslow, V. Франл, C. Rogers and G. Allport who, in their theoretical and practical activities, directly respond to the question about the nature of human development.

Rogers revealed the necessary conditions for humanization of any interpersonal relationships providing constructive personality changes, which are fully moral, based on their nature: non-judgmental positive acceptance of others, active listening to others (honestly, completely) and a dose of empathy, which should be expressed in the communication with others. According to Rogers, moral values do not form from the outside, but inside on the grounds of the inner experience of a person. In connection to the humanistic approach of education, Rogers claims that the overall values associated with the personal abilities of an individual (human dignity, freedom of choice and responsibility for its consequences) are the foundation of humanistic innovation in education, (Rogers, 1969, 218-226).

A. Maslow is well known as a creator of the self-realization theory. He defines the major ideas about person's self-realization: person's development, discovering of individual's personal abilities and capabilities, continual strive towards self-realization, self-expression and manifestation of existential values. According to Maslow 'human's nature is not as bad as people believe'. He argued that individuals are capable of using their "talents", abilities and capabilities completely, to their full extent (Maslow, 1964: 132).

Maslow created the hierarchy of needs, which in the psychological science is known as "Maslow's Pyramid". He described the structure of the top values including: righteousness, beauty, the good, equality and integrity, acceptance of oneself and others, tendency to problem solving thinking, altruism, tolerance and high objectives in life (Maslow, 1970).

V. Frankl who is considered one of the most famous and consistent representative of humanistic psychology gave major contribution to the understanding of moral values. Frankl argued that moral values are established based on internal dialogue, the voice of conscience as the organ of emotion, (Столович, 1994: 10).

He identified three groups of values: creative values, experience values, and behavior values. Creative work is something that we create in our lives- the first level; something that we copy from the real world with the help of experience, the second level; while how we behave in our lives, the position that we take is the third level. 'The world of values is seen from an individual's perspective, and for every single situation there is only one standpoint. Actually, absolutely true idea about something that exists is not in contrast to the relativity of individual viewpoints, but exists thanks to them', (Франкл, 1990: 171-172).

Moral education is closely connected to behavior. In psychology, there are three primary tendencies in the understanding of behavior. The representatives of "the activity approach" (S. Rubinstein, A. Leontiev, V. Davidov), study human behavior in context of the activity that transforms the human. Namely, "the activity" is defined as special kind of relationships between humans and the world. In the research of the "systematic approach" representatives (A. Ananiaev, B. Lomov), the emphasis eternally passes from the activity to the psychological phenomena.

According to Myasishchev the content of behavior is determined by the characteristics of the relationship between a subject and an object. Also, the relationship allows the connection between a human and the world, as well as, the human and others to be determined. Next, the relationship is associated with the activity and the expression in it; last, the content of the behavior reveals human's characteristics. If as an object of the relations, in the context of our research, moral values which

mirror humanistic character of relations show up, it is necessary to identify the nature of the valuable relationships which appear as a process and as a result of acquired values. Valuable relationships are considered as relations important for the object regarding the interests of the subject. They define the sense of the spiritual and moral values of a human and become personal values. (Братусь, 1994: 58). It should be highlighted that the valuable relationships together with the activity make an inseparable totality, which exists thanks to the determined mutual relations between the valuable relationships (attitudes) and the valuable findings. Moral relationships are the most valuable human relationships.

Judging by the nature of the values, Rubinstein notes that 'values- are not the thing that we pay for, but the thing that we live for', (Рубинштейн, 1973: 381). P. Blonsky and L. Vygotski matured the idea of child's moral development through the theory of higher psychological functions which have certain history. Regarding the higher psychological functions one can distinguish consciousness, mental organization and arbitrariness. They appear during the process when a person enters in the world of ethic culture (Петровский, Ярошевский, 1996: 220-221).

Central to the problem of orientation of students' moral values is the question about the nature and the structure of the moral choice because choices in human life are the main content of moral experience. It is in our best interest for the research to clarify the question what composes the complexity of moral situation, moral choice and moral action of human.

According to I. Kon the peculiarity of a moral situation is in the fact that it puts a person before a choice which is made voluntarily, according to their own will, oriented not only towards the pragmatic self-useful reasons, but to some "more important tasks" whose practical feasibility is not guaranteed in advance by anyone. Thus, he called the moral situation, a situation of uncertainty and risk,

(Кох, 1984: 47). The actual conditions can be obstacles to the realization of moral patterns in actions and behavior. Moral choice involves overcoming of these obstacles.

The concept of A. Titarenko is of great scientific interest. He discusses the moral and psychological process from a position of interests and needs, motivation and moral orientation, moral motives and objectives, resolving of moral situations, forming intentions, moral action (personal actions), means of moral action and degree of willful strain of a subject, aim of proceedings, and also changes caused in the state of choice, self-evaluation and evaluation procedures. These components appear as successive stages in the process of moral choice. Titarenko separates two groups of needs: material (food, rest, etc.) and social (needs at work, communication, cognition, aesthetic pleasure and moral satisfaction).

The psychologists (L. Bozovic, A. Lavrinenko) view the problem of morality in the choice of moral values during the process of exchanging values. Behavior becomes stable when is converted into person's quality and as their quality it represents synthesis of their motives and certain ways of behavior (according to L. Bozovic).

In Bozhovic's research stable manifestation of qualities in different conditions and different kinds of activity means that a certain quality is already established, i.e. the person is able to emancipate by the influence of the environment, which acts in contradiction with system of subjective moral values. In Bozhovic's opinion, value orientations determine the position of morality while motives attach to behavior social significance and stability (Божович, 1979: 23-31).

An important step in identifying mechanisms of moral education has been made by researchers who studied orientations of a person (K. Platonov). In accordance with this concept, education of a person is subsequent adoption of social norms and principles of moral rules which

are socially accepted. The task of a teacher is not only teaching students how to adopt particular moral habits and skills, but also how to contribute to the development of strong and long lasting motivation of students in moral behavior. In the formation of value orientations among students, Platonov places great importance to communication and involvement of value orientations in its structure, because he considers it an important factor in the communication process which leads to unification of cognitive and emotional components as well as moral abilities of a person.

There is a certain correlation between value orientation and person's position. B. Ananov finds the logic of this view by determining the position of a person as a complex system of personal relationships (to the society as a whole and the community to which the person belongs, to work, to people and to the person, himself), attitudes and motives by which he is guided in his actions, objectives and values towards which he is oriented when acting (Анисимов, 1988: 12).

In the last two decades a new view in the psychology, which examines the person from a position of methodological pluralism emerged. The idea of determining person's personal development through resolution of internal and external contradictions, rooted in the psychology of natural and scientific paradigm, is replaced with the idea of self-determination, self-development, and self-actualization. This contributed to the introduction of permanent conception of development, which is associated with humanistic sciences (Власова, 1999: 108).

These surveys returned in the psychology the terms "conscience", "honor", "spirituality", "morality", "psyche" (S. Bratus, A. Petrovsky, V. Slobodchikov, V. Zinchenko, V. Kolesnykov etc.)

S. Bratus unfolded the values and the cognitive conceptions of humans and

defined the essence of human nature through his behavior with others as a value itself, which is a symbol of infinite potential of the human race. As criteria of normal development of a person, he recognizes the following: ability of decentralization, devotion and love as a way of behavior, creative nature of actions in life, need of positive freedom, ability of free expression of will, self-projection of future, belief in the possibility of planning, internal responsibility to ourselves and others, to past and future generations and aspiration to achieve full meaningfulness of life, (Котова, 1994: 125).

The opinion of V. Shadrikov, who believes that upbringing is a process aimed at the adoption of moral values as an integral part of the culture, is important for our research (Шадриков, 1995: 57). According to Shadrikov, awareness of the good and evil, presence of taboos, of moral prohibitions and approvals, are all important in the development of humanity and influence the safety, the ability to live, and the self-sustainability of a person (Шадриков, 2001: 254). Relying on Plato's works, Shadrikov notes that morality has a complex nature: it is the product of genetic, psychological, pedagogical and social conditions and processes of human action.

4. CONCLUSION

The analyses of pedagogical and psychological literature on moral education indicate that moral values act as a base in upbringing and education of each student individually. Moral education founded on humanism is the core of recognition person's absolute value and priority of his right of full realization of abilities and interests. The basics of moral values is in cultural and historical experience of the previous generations, for the sake of one's own "I", the others, the society and the nature.

Among religious people, religious values contribute significantly to building the moral character. The ground of moral values is oriented towards life, humans, traditions and principles of the humanism. At the end of the education, students build up perception of life with values and shape their moral values and orientations.

REFERENCES

- Maslow A. (1970). *Motivation and personality*. New York.
- Maslow A., *Religions* (1964). *Values and Peak-experiences*, Columbus, Ohio: [Ohio State University Press](#).
- Rogers, C. (1969). *Freedom to Learn: A View of What Education Might Become*. Columbus, Ohio: *Charles Merrill*, 358.
- Андреев В.И. (2009). *Педагогическая этика: Инновационный Курс Для Нравственного Саморазвития*. Казань, *Центр Инновационных Технологий*, 272.
- Анисимов С.Ф. (1988). Духовные ценности: производство и потребление. *Мысль*, 15-45.
- Божович Л. И. (1979). Этапы формирования личности в онтогенезе, *Вопросы психологии*. №4, 23-31
- Бондаревская Е. В. (2000). *Теория и практика личностно-ориентированного образования*. Ростов-на-Дону: РГПУ, 352.
- Бондаревская Е. В. (2000). *Формирование нравственного сознания старших школьников*. Диссер. докт. пед. наук. Ростов-на-Дону.
- Братусь Б. С. (1994). Психология. *Нравственность. Культура*. МГУ, 145.
- Валицкая А. П. (2001). *Модернизация и свободное развитие*, Педагогика. №7. 3-7.
- Вентцель К. Н. (1908). *Нравственное воспитание*, Свободное воспитание. №4., 14-38.
- Вентцель К. Н. (1912). *Этика и педагогика творческой личности*, 667.
- Власова Т. И. (1999). *Теоретико-методологические основы и практика воспитания духовности современных школьников*. Дис. докт. пед. наук. Ростов-на-Дону, 366.
- Зеньковский В. В. (1997). *Русская педагогика в XXв, Педагогика*. №2. 73-89.
- Ключевский В. О. (1987). Сочинения. В 9 т., Уредник: В. Л. Янина. *Мысль*, 430.
- Коменский Я. А. (1982). *Материнская школа*. Translation from German, *Избр. пед. соч. - В 2-х т. - Т. 1.*, стр. 229 - 237.
- Кон И. С. (1984). В поисках себя: личность и самознание. *Просвещение*, 335.

- Конникова Т. Е. (1957). Организация коллектива учащихся в школе. *АПН РСФСР*, 400.
- Котова И. Б. (1994). Психология личности. *Столетие развития*. Ростов-на-Дону: РГПУ, 213.
- Крупская Н. К. (1959). Педагогика сочинений. *АПМ РСФСР*, 160.
- Кульневич С. В., Лакоценина Т. П. (2001). Воспитательная работа в средней школе. От коллективизма к взаимодействию. *ТЦ «Учитель»*, 287.
- Марьенко И. С. (1985). Нравственное становление личности школьника. *Педагогика*, 102.
- Немов Р. С. (1999). Психология: Учеб. пособие для студ. высш. пед. заведений в 3-х кн. К.1. *Общие основы психологии. Владос*, 641.
- Николина В. В. (2002). Духовные ценности и воспитание личности: психолого-педагогический аспект. *Н. Новгород*, 85.
- Петровский А. В., Ярошевский М. Г. (1996). *История и теория психологии*. Ростов-на-Дону: Феникс, 416.
- Равкин З. И. (1995). Развитие образования: новые ценностные ориентиры, *Педагогика*. №5.87-90.
- Рубинштейн С. Л. (1973). Человек и мир: Проблемы общей психологии, Уредник: Е. В. Шорохова. *Педагогика*, 423.
- Сергеева В. П. (2000). Классный руководитель в современной школе. *Московское городское педагогическое общество*, 192.
- Сластенин В. А., Исаев И. Ф., А. И. Миценко, Е. Н. Шиянов. (2000). *Педагогика*. Учеб. пособие для студ. пед. учебн. заведений - 3-е изд. перераб. и дополн. *Школа-Пресс*, 512.
- Столович Л. Н. Красота. (1994). Добро. Истина: Очерк истории эстетической аксиологии. *Республика*, 464.
- Сухомлинский В. А. (1961). Духовный мир школьника (Подросткового и юношеского возраста). *Учпедиздат*, 223.
- Ушинский К. Д. (1953). Избранные педагогические сочинения в 2-х т. *Учпедизд*, 638.
- Франкл В. (1990). Человек в поисках смысла, Уредники: Л. Я. Гозмана и Д. А. Леонтьева. *Прогресс*, 368.
- Фрейд З. (1986). Сознание и бессознательное, *Хрестоматия по истории психологии*. 194.
- Харламов И. Ф. (1999). Педагогика: Учебн. пособ. - 4-е изд. *Гардарики*, 519.
- Шадриков В. Д. (1995). Качество образования и образовательный стандарт. *Новгород: НГУ*, 225.
- Шадриков В. Д. (2001). Происхождение человечности. *Логос*, 296.

PRACTICAL STRATEGIES FOR ENHANCING INTER-DISCIPLINARY COLLABORATION IN NEUROEDUCATIONAL STUDIES

Dr. Ali Nouri, Department of Educational Studies, Malayer University, Iran
E-mail: alinooripo@gmail.com

Abstract: The need to overcome artificial obstructions and limitations in our scientific understanding of the complexity of educational issues is the major driver of interdisciplinary collaboration in the field of Neuroeducational Studies. To get full advantage of interdisciplinary collaboration therefore, it would be necessary to identify and develop a number of practical strategies that facilitate such endeavor. The relevance literature suggests that making effective interdisciplinary collaboration in the field is dependent on a number of factors, including: creating a common language and conceptual vocabulary; developing graduate educational programs; providing training programs for neuroscientists and educators; and developing neuroeducational research organizations. It is concluded that, interdisciplinary collaboration is a potential key that ensures a more prosperous future for the field and it will be best realized based on authentic dialogue among scientists and educators.

Keywords: Neuroeducational Studies, Interdisciplinary Collaboration, Neuroscience, Psychology, Cognitive Science, Education

1. INTRODUCTION

The explosion of new ideas and findings throughout the 20th century launched many new disciplines, and promising associations between these disciplines in turn gave birth to innovative fields of study. The efforts in this direction, continues into the 21st century as new insights in human behavior and the brain portend new strategies to improve the learning sciences (Schwartz & Gerlach, 2011). The rapid development of neurosciences, the advances in psychology and education research, and interdisciplinary cooperation between these fields of investigation lead to a better understanding of learning, cognition, emotions and consciousness (Battro, Fischer & Le'na, 2008). Consequently, an interdisci-

plinary field of study built on the steadily growing interest in the potential of a connection between neuroscience, cognitive science, psychology, and education in order to improve our understanding of learning and education. This emerging field sometimes referred to as 'Neuroeducation' e.g. (e.g. Howard-Jones, 2011; Ansari, De Smedt & Grabner, 2012), sometimes as 'Mind, Brain and Education' (e.g. Fischer et al, 2007; Stein & Fischer, 2011; Schwartz and Gerlach, 2011) and sometimes as 'Educational Neuroscience' (e.g. Geake, 2009 & Patten & Campbell, 2011).

Although there are some differences in the approach of these initiatives, the common goal of all these initiatives is to combine our educational understanding with our biological and psychological understanding of brain function and learning (Howard-Jones, 2008, p. 361). However, some experts in the field prefer the term Mind, Brain and Education, which they see it as being more pedagogically focused (Schwartz and Gerlach, 2011). Some others prefer the term 'neuroeducation', as see it more akin to an education science (Campbell, 2011; Howard-Jones, 2011). They believe this better reflects a field with education at its core, uniquely characterized by its own methods and techniques, and which constructs knowledge based on experiential, social and biological evidence (Howard-Jones, 2011; 2008).

Following Campbell (2011), I believe that the term 'neuroeducation' encapsulates anything that involves some kind of rigorous synthesis concerning matters pertaining to mind, brain, and education quite well. In this view, "educational neuroscience" can be considered "as a new area of *educational* research,

and one that naturally draws on the neurosciences (especially cognitive neuroscience, including psychophysiology), and yet one that falls within the broader emerging *field* of neuroeducation” (Campbell, 2011, p. 8). Neuroeducation in this sense can be described as growing energy behind linking education, psychology, cognitive science and neuroscience in an effort to improve learning theory and educational practice.

Here, I use the term “Neuroeducational Studies” to pretty well describe it as “a growing interdisciplinary field based on a synergetic connection between neuroscience, cognitive science, psychology, and education in an effort to improve our theoretical and practical understanding of learning and education”. The suffix “studies” added to best feature its *interdisciplinarity* nature and distinguish it from single disciplines; as such it has been recruited by other interdisciplinary fields such as “Curriculum Studies”, “Cultural Studies”, “Environmental Studies”, “Law studies” and so on.

Regardless of its name, this new academic field holds many attributes of a growing interdisciplinary field, even though it is still in its early stages. There are peer-reviewed scientific journals, academic societies, graduate programs, conference series, forums and special interest groups that all exemplify the vitality and dynamic advancements of the field. In addition, there also exist an increasing interest and emphasis on the role of this new field in better understandings of education, development and learning (e.g. Spitzer, 2012; Blakemore & Frith, 2005; Gardner, 2009; Ansari, De Smedt & Grabner, 2012; Campbell, 2011; Goswami, 2004, 2006; 2008; Ansari & Coch, 2006). In that light, neuroeducational studies as an emerging field that concerned with the interaction between mind, brain, and education, has proved revolutionary in educational research, introducing concepts, methods, and technologies into many advanced institu-

tions around the world (Battro, Fischer & Le’na, 2008).

While the interdiscipline of neuroeducational studies currently is growing fast, it is also being faced with a number of practical challenges some of which are endemic to the emergence of any new discipline (Patten & Campbell; 2011; Schwartz & Gerlach, 2011). Patten & Campbell (2011) recount some of these challenges including: a need for more coherent terminology, a struggle to identify and establish theoretical and philosophical foundations, a quest for practical empirically-based models, and a requirement for standards of ethical practice. They truly ascribe these challenges onto the “cross-disciplinary” nature of the field and its consequential need to combine a variety of resources, methodologies, and results (see Patten & Campbell, 2011). This specific structure of the field augment the need to build an infrastructure that supports sustainable collaboration between researchers and teachers and creates a strong research foundation for education (Hinton & Fischer, 2008). Overall, the need to overcome artificial obstructions and limitations in our scientific understanding of the complexity of educational issues is the major driver of interdisciplinary collaboration in neuroeducational studies.

2. INTERDISCIPLINARY COLLABORATION IN NEUROEDUCATIONAL STUDIES: A PRACTICAL FRAMEWORK

Interdisciplinary thinking is at the heart of a holistic understanding of complex problems. In his landmark book, Popper (1963) stated that “we are not students of some subject matter, but students of problems; and problems may cut right across the borders of any subject matter or discipline” (p. 88). This point is particularly clear in neuroeducational studies, a field which has been built as an interdisciplinary

field of study to investigate educational issues that their solution is of beyond a single disciplinary perspective. This demands educators and scientists to work collaboratively in a manner that the gap between research and practice could be lessened and neuroeducation could inform educational theory and practice. Based on this understanding, numerous studies have emphasized on the importance of interdisciplinary collaboration in the field (e.g. Goswami, 2008; 2006; 2004; Howard-Jones, 2008; Geake, 2009; Ansari & Coch, 2006; Fischer et al, 2007; Hardiman, 2009; Willingham & Lloyd, 2007; Gardner, 2009; and Ansari, De Smedt & Grabner, 2012). The feasibility of interdisciplinary collaboration however has not been well represented and introduced in a systematic fashion.

To get full advantage of interdisciplinary collaboration therefore, it would be necessary to identify and develop a number of practical strategies that facilitate such endeavor. Toward this end, the principal problem being investigated here is to review and synthesize the relevant literature in order to provide a conceptual overview of interdisciplinary collaboration in the field and to initiate a serious debate on the potential levels of collaboration between the contributing disciplines. The relevance literature suggests that making effective interdisciplinary collaboration in neuroeducational studies is dependent on a number of factors which can be categorized into the following strategies:

2.1. Creating a common language and conceptual vocabulary

One of the truisms in regard to difficulties associated with establishing interdisciplinary research and collaboration is the necessity of creating a common language and conceptual vocabulary (Gilbert, 1998). Concepts and language, even with respect to the meaning of fundamental

terms such as “learning” and “education” can mean completely different things to educators and scientists (Devonshire, & Dommett, 2010; Howard-Jones, 2011). For instance, from a biological perspective, learning is the process of making neuronal connections in response to external environmental stimuli, and education is the process of controlling or adding stimuli, and of inspiring the will to learn (Koizumi, 2004). On the other hand, educators go on to significantly distinguish learning from education. They do not necessarily include any learning as educational experience. From an educational perspective, it is the dominant educational ideology (normative theory) which determines what kind of learning is educational experience and what is noneducational or even miseducational (see Eisner, 1995, p. 37).

It is clear that, the lack of a common understanding on these fundamental terms, not only increases the risk of misunderstanding and over interpretation of information in translation (Devonshire, & Dommett, 2010; Howard-Jones, 2011), but also undermines the efforts of practitioners and researchers to solve the complexity of educational issues. Therefore, it is generally accepted that developing a common language as the basis of systematic interactions between researchers from different disciplines is a challenging and ultimately necessary part to truly do interdisciplinary research. The first dictionary of MBE science terms (Tokuhamma-Espinosa, 2011) is a promising attempt in order to develop a shared terminology for MBE researchers and practitioners. In addition, the establishment of conferences, meetings, journals, workshops and other collaboration channels can also facilitate the building of creating a common language and conceptual vocabulary.

2.2. Developing graduate educational programs

Considering the greatest challenge faces by neuroeducation i.e. diversity in its definition and the lack of a common language, there requires a joint efforts by researchers with different expertise areas of all contributing fields (Ansari & Coch, 2006). Such a vision of cooperation and collaboration requires a context where people can address educational challenges in a supportive environment to develop a framework for defining new goals, roles and responsibilities (Schwartz & Gerlach, 2011).

What is needed more urgently therefore, is training a new generation of neuroeducators who could able to transfer scientific findings from cognitive sciences and neuroscience to educational theory and practice. The good news is that, there is an increasing emphasis on training professionals by the number of highly ranked graduate schools, such as Harvard, Cambridge, and Dartmouth that recently started to present MA and PhD programs in Neuroeducational studies. However, it needs to be replicated by other educational faculties to train a new generation of professionals who will be able to generate new knowledge and critically evaluate concepts, assumptions, underlying theories and limitations in the field.

2.3. Providing training programs for neuroscientists and educators

The fact is that, today teachers and educational sciences students are not trained to become adequately familiar with the potential contribution of neuroscience to educational thought and practice. For this reason, they lack insights into neuroscientific theories and methodological approaches. On the other hand, neuroscientists frequently are largely unaware of the

current pedagogical approaches used in schools and, therefore, lack an actual overview of what is being taught in school, how this is taught, and what expectations are being set by curricula (Ansari, De Smedt, & Grabner, 2012). This suggests that it is important to consider strategies to improve the professional development of both neuroscientists and educators working in the field. There is need to provide opportunities for neuroscientists to be trained in educational theory and pedagogy and for educational researchers and educators to equip with a basic understanding about neuroscientific findings, theories and methods (Ansari, Coch & De Smedt, 2011; Ansari, De Smedt, & Grabner, 2012; Ansari & Coch, 2006). It may be realized by integrating courses on cognitive neuroscience into educational studies and teacher education curricula, and integrating cognitive neuroscience methods and findings into their current courses. They need to know what science has discovered about learning and development at multiple levels of analysis, from multiple perspectives (Ansari, Coch & De Smedt, 2011).

Berninger Virginia and Richards Todd (2002) have written a very useful textbook on the brain literacy specifically for teachers and other professionals in the field of education. Likewise, organized opportunities for neuroscientists need to be provided to become more familiar with the nature of educational theory and practice. These opportunities may encourage researchers with different expertise to involve more in action research and to carry out studies in real learning settings. Through such interdisciplinary training, neuroscientists will ask more educationally relevant questions and educators will be able to use knowledge gained through exposure to neuroscience in their educational practice (Ansari & Coch, 2006; Ansari, De Smedt, & Grabner, 2012).

2.4. Developing neuroeducational research organizations

The interdisciplinary nature of neuroeducational studies implies conjoining a variety of perspectives and insights from relevant disciplines into a unified or coherent framework to solve complex problems that their solutions are beyond the scope of a single perspective or discipline. This process of integration may require a multiperspective lens and multimethod approach to research and interdisciplinary collaboration is a useful strategy for tackling complexity nature of issues and problems in the field (Howard-Jones & Fenton, 2012). In this framework, the key goal for neuroeducational research is to bring together all educational stakeholders to share their experiences and collaboratively develop neuroeducational research organizations in which, researchers and practitioners in multidisciplinary, interdisciplinary, and transdisciplinary manners could formulate research questions and methods to investigate the problems coming out of educational policy and practice. Whereas multidisciplinary and interdisciplinary activities are typically project oriented, based on treating traditional problems in new ways, transdisciplinary activity is more oriented toward opening new, potentially revolutionary, sets of problems (Campbell, 2011). Affording new avenues for experimental design and collaboration, be it pursued in a transdisciplinary manner, researchers from different disciplines with a variety of research methods, tools, techniques and processes coming together to create new research methods and procedures in order to answer questions and solve problems which need to be addressed from a multi-perspective approach (Koi-zumi, 2004). Toward that end, the concept of “Research Schools” (Stein & Fischer, 2011; Hinton & Fischer, 2008) or “Research Schools Network” (Schwartz & Gerlach, 2001) must transform from an idea to a reality. Hinton & Fischer (2008)

“As living laboratories that connect the work of researchers and practitioners, research schools will support the bidirectional relationship between research and practice that is needed to ensure fruitful transdisciplinary work” (p. 160). Research Schools Network as an extension of Dewey’s laboratory school is a network of researchers, educators, and policy makers working collaboratively to establish conceptual frameworks, identifying educational challenges, developing experimental methodologies and ethics, clarifying research findings, interpreting conclusions, and monitoring suitable applications of results (Schwartz & Gerlach, 2011).

3. CONCLUSION

Although there are many obstacles that lie in the way of a productive field of neuroeducation, but there is much reason to be optimistic and that the groundwork has been laid to advance this field in earnest (Ansari *et al*, 2012). Given this interdisciplinary character of neuroeducation, careful consideration of this issue can make a foundation for a more successful future in the field. The level of interdisciplinary collaboration research has steadily increased over two decades ago. The Organization for Economic Co-operation and Development (OECD) has committed to explore how research in the cognitive and neurosciences has the potential to inform the field of education (OECD, 2007). The International Mind, Brain, and Education society (IMBES) has formed in 2007, to facilitate cross-cultural collaboration in all fields that are relevant to connecting mind, brain, and education in research, theory and practice. The Neuroeducational research network (NENet) at the University of Bristol has also has played a key role in developing collaboration between the fields of neuroscience and education (see Howard- Jones, 2007; 2011). There are also a number of leading schools have sim-

ilar programs connecting basic and applied research from the fields of cognitive science, psychology, neuroscience, and education (for example, Mind, Brain, and Education Program: Harvard Graduate School of Education; A Mind, Brain, and Education (MBE) Approach: Department of Education at Dartmouth College; Mind, Brain, and Teaching Certificate: School of Education at Johns Hopkins University; Centre for Educational Neuroscience: University of London; and the Centre for Neuroscience in Education: University of Cambridge). Such university programs will educate a new generation of professionals who will bridge the division between scientists and educators. In addition, two professional journals ("Mind, Brain, and Education" and "Trends in Neuroscience and Education") devoted to bridge the gap between our increasing basic cognitive and neuroscience understanding of learning and the application of this knowledge in educational settings.

Being a problem-focused interdisciplinary field, neuroeducation seeks to bring together biological, psychological, and educational perspectives, with the express intention of improving educational practices (Stein & Fischer, 2011). Given this interdisciplinary character of neuroeducation, careful consideration of this issue can make a foundation for a more successful future in the field. The level of interdisciplinary collaboration research has steadily increased over two decades ago (see box 2). Neuroeducational researchers then, as Howard-Jones (2011) noted "must traverse the boundaries of diverse traditions of knowledge making and establish coherent interdisciplinary dialogue, maintaining sense as it is commonly determined and understood by these very different traditions" (p. 29).

In sum, the potential future of the emerging field of neuroeducational studies should be framed in terms of interactions and based on mutually beneficial dialogue among participants with knowledge of child development, learning, and teaching

(Ansari *et al*, 2011). In this framework, whereas cognitive science and neuroscience could inform education by providing additional evidence that may variously corroborate, refine, or refute the validity, reliability, and relevance of the theories of teaching and learning (Campbell, 2010), education could inform cognitive science and neuroscience by providing a source of complementary behavioral data, as well as posing new worthwhile lines of investigation (Geake, 2009). In light of this, educational researchers and practitioners have a leading role to play in fundamental development of this endeavor.

REFERENCES

- Ansari, A., Coch, D. & De Smedt, B. (2011). Connecting Education and Cognitive Neuroscience: Where will the journey take us? *Educational Philosophy and Theory*, 43(1), 37-42.
- Ansari, D. & Coch, D. (2006). Bridges over Troubled Waters: Education and Cognitive Neuroscience. *Trends in Cognitive Sciences*, 10(4), 146-151.
- Ansari, D., De Smedt, B. & Grabner, R. (2012). Neuroeducation: A Critical Overview of an Emerging Field. *Neuroethics*, 5, 105-117.
- Atherton, M. (2005). Applying the Neurosciences to Educational Research: Can Cognitive Neuroscience Bridge the Gap? Part I. *Annual Meeting of the American Educational Research Association*. Montreal, Canada.
- Battro A M., Fischer K W. & Le'na P J. (2008). The Educated Brain: Essays in Neuroeducation. Cambridge: *University Press*.
- Berninger, V., & Richards, T. L. (2002). Brain Literacy for Educators and Psychologists. San Diego, CA: *Academic Press*.
- Blakemore, S J. & Frith, U. (2005). The Learning Brain: Lessons for education. Oxford, *Blackwell*.
- Campbell, S R. (2010). Embodied Minds and Dancing Brains: New Opportunities for Research in Mathematics Education (in) B. Sriraman, L. English (eds.), *Theories of Mathematics Education, Advances in Mathematics Education*, 309-331.
- Campbell, S.R. (2011). Educational Neuroscience: Motivations, methodology, and implications. *Educational Philosophy and Theory*, 43(1):7-16.

- Devonshire, I M. & Dommett, E J. (2010). Neuroscience: Viable Applications in Education? *The Neuroscientist*, 16(4), 349–356.
- Eisner, E W. (1995). *The Educational Imagination* (third edition). Macmillan College Publishing Company: New York.
- Fischer, K W., Daniel, D B., Immordino-Yang, M H., Stern E., Battro, A. & Koizumi, H. (2007). Why Mind, Brain, and Education? Why Now? *Mind, Brain, and Education*, 1(1), 1-2.
- Gardner, H. (2009). An Education Grounded in Biology: Interdisciplinary and Ethical Considerations. *Mind, Brain, and Education*, 3(2), 68–73.
- Geake, J. (2009). *The Brain at School: Educational Neuroscience in the Classroom*. McGraw Hill: Open University Press.
- Gilbert, L. E. (1998), Disciplinary Breadth and Interdisciplinary Knowledge Production. *Knowledge, Technology, and Policy*, 11(1 & 2), 4–15.
- Goswami, U. (2004). Neuroscience and Education. *British Journal of Educational Psychology*, 74, 1-14.
- Goswami, U. (2006). Neuroscience and Education: From Research to Practice? *Nature Reviews Neuroscience*, 7, 2-7.
- Goswami, U. (2008). Principles of Learning, Implications for Teaching: A Cognitive Neuroscience Perspective. *Journal of Philosophy of Education*, 42(3-4), 381-399.
- Hall, J. (2005). Neuroscience and Education: What Can Brain Science Contribute to Teaching and Learning? *Spotlight*, 92. The SCRE Centre, University of Glasgow.
- Hardiman, M. (2009). In Barbara R (ed) *Neuroeducation: Learning, Arts, and the Brain*. New York/Washington, D.C: Dana Press.
- Hinton, C. & Fischer, K W. (2008). Research Schools: Grounding Research in Educational Practice. *Mind, Brain, and Education*, 2(4), 157-160.
- Howard-Jones, P. A. (2007). *Neuroscience and Education: Issues and opportunities*. London, *Teaching and Learning Research Programme*.
- Howard-Jones, P. A. (2008). Philosophical Challenges for Researchers at the Interface between Neuroscience and Education. *Journal of Philosophy of Education*, 42(3-4), 361- 380.
- Howard –Jones, P. A. (2011). A Multiperspective Approach to Neuroeducational Research. *Educational Philosophy and Theory*, 43(1), 24 – 30.
- Howard-Jones, P A. & Fenton, K D. (2012). The Need for Interdisciplinary Dialogue in Developing Ethical Approaches to Neuroeducational Research. *Neuroethics*, 5(2), 119 -134.
- Koizumi, H. (2004). The Concept of ‘Developing the Brain’: A New Natural Science for Learning and Education. *Brain & Development* 26, 434–441.
- Organization for Economic Co-operation and Development (OECD). (2007). *Understanding the Brain: The Birth of a New Learning Science* (v. 2). OECD Publishing.
- Patten, K E. & Campbell, S R. Introduction: Educational Neuroscience. *Educational Philosophy and Theory*, 43(1), 1-6.
- Popper, K. R. (1963). *Conjectures and Refutations: The Growth of Scientific Knowledge*. New York: Routledge & Kegan Paul.
- Schwartz, M & Gerlach, J. (2011). The Birth of a Field and the Rebirth of the Laboratory School. *Educational Philosophy and Theory*, 43 (1), 67-74.
- Spitzer, M. (2012). Education and Neuroscience. *Trends in Neuroscience and Education*, 1(1), 1-2.
- Stein Z. & Fischer, K W. (2011). Directions for Mind, Brain, and Education: Methods, Models, and Morality. *Educational Philosophy and Theory*, 43 (1), 56-66.
- Tokuhama-Espinosa T. (2011). *Mind, Brain, and Education Science: A Comprehensive Guide to the New Brain-Based Teaching*. Norton & Company: New York & London.
- Willingham, D. T. & Lloyd, J. W. (2007). How Educational Theories Can Use Neuroscientific Data. *Mind, Brain, and Education*, 1(3), 140-149.

CENSORSHIP AS A MEANS OF PRESERVING NATIONAL IDENTITY

Dr. Agapova Elena, associate professor
Faculty of Philosophy and Cultural Studies of the South Federal University
Russia, Rostov-on-Don, 33 Sadovaya Str.
E-mail: e-agapova@yandex.ru

Abstract: In the current climate, preservation of identity and statesmanship depends on correct usage of censorship, which presents a guarding organism eliminating the consequences of “information war”. Over the past few decades cultural values have been replaced by quasivalues, which, in their turn, served as a basis for promulgation of new behavior patterns. Thus, society promotion, simplification of national culture, as well as attempts to control mass conscience in order to orient it towards strange and primitive norms and values, are a result of information war and lack of censorship as counterbalance.

Key words: censorship, manipulation of conscience, information war, information flow and mass media.

Censorship: patterns of development

In the current climate, preservation of identity and statesmanship depends on correct usage of censorship, which presents a guarding organism eliminating the consequences of “information war”. Theoretical basis of information war is principally constituted by A. Gramsci’s theory of “cultural nucleus”, the theory of cognitive discord and conception of P. Lazarsfeld’s gradual distribution of information. Such war is aimed at demolition of the public system of values, destabilization of society on spiritual, political and economic level. Thus, society promotion, simplification of national culture, as well as attempts to control mass conscience in order to orient it towards strange and primitive norms and values, are a result of information war and lack of censorship as counterbalance.

Over the past few decades cultural values have been replaced by quasivalues, which, in their turn, served as a basis for promulgation of new behavior patterns. Demolition of the system of values begins with exposure of vulnerable spots in oppo-

nent’s semantic scope, definition of dissonant facts, stereotypes and conceptions, to which afterwards fundamental meaning is attributed through media propaganda. At that as an alternative to society a new world model is offered, that is based upon illusions and stereotypes of the given society, but not rooted in its historical memory, national traditions, underlying psychological paradigms and directly contradicting social and historical conditions of its existence.

A condition of effectiveness of manipulation is taking mass conscience beyond the framework of norms, values, stereotypes, destabilization of mass conscience through propaganda and diversion. Victory and information war is achieved when destructive system of values is perceived by target audience as a “way to freedom”, and the carriers of those values – as “liberators”. Thus, information war is a fundamental element in modern geopolitical division of the world, and growing importance is now being attached to development of countermeasures against manipulation technologies, as well as development of control and protection facilities with regard to information space. Owing to the lack of protection means to support information space, ideology matrix was dismantled, the public lost the system of value coordinates, and what remained was a bulk of people with no coherent worldview and no ability towards logical thinking, recognition of cause-and-effect relationships.

The close of the 20th century and the early 21st century clearly saw moral and intellectual degradation of considerable part of population. Progressively, grew the potential of manipulating this part of socie-

ty. At that, methods of manipulation came to be even more primitive. For example, with respect to political situation, winning is about disregarding political correctness. Electorate needs scandal, fight, exposure, because without intrigue even the best election program won't be heard, read or voted for by the majority, as politics as it is doesn't interest the masses anymore. As a result, in the framework of political technologies it is now possible to entirely refuse influence upon intellectual minority and stage consecutive "show" for undereducated masses with insignificant engagement of marginal segment. In these conditions, certain "elite" circles and its "guides" found it appropriate to deprive science and education of the power to influence the masses and hinder further simplification of manipulation technologies that goes along with exponential spread of manipulation.

The priority task was affiliated with keeping science representatives (first and foremost with regard to human sciences owing to its immense potential to influence opinion) and, consequently, humane knowledge as a whole, away from access to the "buffer zone" and preserving science within marginal layer, approximately on the same level with "middle management" and "mobsters" having pulled ahead to become "security chiefs". In other words, what is meant here is the level notable for its high activity, illusion of boisterous existence, possibility of leading normal life, but lacking real results in the framework of influence upon public opinion. As a consequence, humane sciences were confined in a closed world with its estrange "gibberish".

Approbation of most of research is conducted within the confines of the worlds of science and education, which indicates absolute invalidity of this research as socially significant phenomenon. Humanist scholars have practically no access to mass media. This was a mutual process both on the part of media owners and scientist who refused to conform to the

reality of consumer society. However, the gravity of current situation is enhanced as a result of academic community's poor mastering of PR means offered by the Internet. It would appear that academics should be the first to master new possibilities and employ them in order to influence marginal population strata forming their representatives into proper middle class. But whether intentionally or for reasons unknown, science is using outdated measures. Alongside with creation and active promotion of news feeds, blogs and forums, science is posting information on web-sites hardly ever visited by academic community. Thus, activist function of humane clerisy that appeared to be able to destroy a state as big as the Soviet Union, was over the past two decades brought under strikingly easy-to-exercise and low-cost control. The humanities were confined within themselves. At that, by virtue of current education system, this system of humane sciences is characterized by self-maintenance.

Censorship: current status

At this point, we are faced with revolutionary type of censorship that has generalized and thoroughly analyzed the mistakes of the preceding regime. The Soviet Union assiduously prohibited manifestations of "nonconformity" in humane sciences and as a result acquired powerful social networks gathered around the liberal clerisy and oriented towards destruction of state mechanisms, samizdat and soviet rock music serving as examples. Modern elite, however, has created conditions in which formation of social networks around liberal clerisy is practically impossible. This demanded taking a number of steps:

1. Create "the rules of the game" that would enable "the big league" of the humanities to suppress creative initiatives "from below".

2. Separate neighboring society classes and form their distinct systems of values (middle management, for instance) and special culture.

3. Extensively “grease” the big league of the humane sciences and channel financial flow into shadow zone thus acquiring means of total control over leaders of liberal clerisy.

To illustrate the above-described inability of the humanities to exercise any kind of influence over public opinion one can examine the state of affairs with the works of G. Nosovsky and A. Fomenko. Having conducted adequate PR campaign in mass media while denying the laws and norms of scientific community, the authors of a rather questionable theory that is wide open to criticism, have come out at several thousand strong printing run and have definitely entered the “buffer zone” of people exerting influence over public opinion. The answer of official science was so pale and unexpressive, that all it could do was add popularity of the theory to Nosovsky and Fomenko’s theory. Thus, it seems absolutely necessary to conduct across-the-board reform of the principles of modern humane sciences, principles of pursuance and publication of research. Only structural reform can enable the humanities to comply with its social and public mission and stand against degradation of society. At modern stage, the attitude of society, mass conscience towards scientific research remarkably resembles a child’s attitude towards R. Kipling’s dried monkey paw. This tendency is worldwide, however nature abhors a vacuum, and a flow of voodoo doctors, psychics, sorcerers and magicians has rushed through the media, “charging”, “hexing”, “putting astral defense” and being seriously perceived by the masses who sincerely believe in achieving supernatural wealth and prosperity. This obviously presents a crisis undoubtedly caused by ideology of market and consumer society. In his book “Earth in the Balance”, the US vice president A. Gore speaks out about the dead-end faced

by American society because of “market and consumer civilization” that has drawn the planet to a dangerous point. It would appear that mankind has chosen the wrong way of going through bifurcation, hasn’t in due time changed development imperatives, so that general aims and stable future were sacrificed to instantaneous political profits of the elite. Thus, attention should be paid to three periods: the 18th century – Louis’s catch phrase “as if there were no tomorrow”; the 20th century – the citation of Nobel prize winner, liberal democrat Friedrich August von Hayek saying we shouldn’t care too much about future generations, as they can take care of us; the 21st century – the idea of the Golden Billion, intentional degradation of population aiming at closing immediately profitable deals of the elite and creation of gaps between moral imperatives and technology scale.

Obviously, the road of technological civilization that the mankind has been treading for the last four centuries, has come to an end, and society won’t be able to survive with such stereotypes of mass conscience. Hence the task to furnish alternatives for the future, plan it and understand what kind of a person could live in this future. Thus, once again arises the problem of “a new individual”, and this task should be taken care of before culture, ideology, religion manage to adapt to the new future. The later the humanity accepts responsibility for its past, the narrower will be the passage of opportunities. It is obvious that here one will have to rely on the potential of the humane sciences (at that it should be noted here that among leading Russian philosophers there are a lot of people educated in the field of physics and natural sciences. The reason lies in the fact that physics is a great school for critical thinking that explains that in various situations things can be proved and verified instead of hopefully believed at, which gives rise to non-standard approaches to problems seemingly detached from exact sciences). Many problems of the humanities,

including research in the field of censorship, could be attributed to cross-disciplinary issues, as today solving a problem in the framework of one science is no longer possible. For example, in order to conduct detailed research of censorship, one should possess research data of humanitarian (philology, sociology, political science), special (medicine), exact sciences (mathematics, physics), etc.

Therefore, in the present-day situation, in order to effectively resolve philosophical and cultural task in research of censorship, it is imperative to use results of humane and natural modules of study. If not, research will have self-confined character and won't have any practical realization in the public life. In case a possibility exists to realize key points of a research, including ours, a possibility emerges to give an adequate "ANSWER" when civilization is being "HISTORICALLY CHALLENGED" according to A. Toynbee, and at that it is preferable to have several communities offering various answer options. A. Toynbee analyzes historical destinies of different civilizations and notices bifurcation points that had defined the course of development of great states several centuries ahead. If we suggest that in the history of Russia such point occurred in the reformation period (1985), the forecast is rather hawkish. If, however such point hasn't yet occurred at all, introduction of imperative changes and beginning of the new era in Russia is still possible, from DEGRADATION to RENOVATION.

Censorship: measures to adopt

At this stage of "transition" censorship should:

Take up the function of separation of pseudoscience from science, as well as its suppression in mass media.

Form public opinion oriented towards western models and values which

weren't historically rooted in the mentality of the people (Orthodoxy – Protestantism).

Prevent expansion of manipulation technologies provoking changes in an individual's psyche and health issues.

Provide basic education (starting with secondary school) through exercise of control over quality of the teaching process and provision of quality (from the scientific point of view) learning aids excluding propaganda of pseudoscientific views and ideological interpretations.

Essential problem is that censorship is classified among the concepts that society sees as negative phenomena owing to objective and subjective reasons (history of development of censorship and censors).

European countries that have rejected censorship institutes and are dictating their own mentality model, haven't however rejected it completely seeing that they have hidden and blurred censorship embargos in legislation. Over several centuries of such practice, the western world has elaborated stable notion of society, of the permissible and the inadmissible, while Russian society in respect of censorship is currently existing in legislative chaos, so that more often than not West-European assumptions of "the good" and "the evil" differ from those observed in Russia. In order to eliminate such residual controversies, NEWSPEAK is being employed. The term itself was introduced in a fiction work by G. Orwell, in which he showed totalitarian world where even thoughts of an individual were controlled through newspeak so that even thinking of something inappropriate and committing "thought crime" was impossible.

Newspeak is a linguistic system that implies creation of words in an already existing language, as well as substitution of the meaning of the old words. Even more importantly, the new meaning turns out to be exactly the opposite of the old one. Such system is used to manipulate public opinion, overmaster people's thinking processes and channel them in accordance with manipulator's wants. In the course of

time, the terms of newspeak replace original words of the language together with their conventional connotations, which brings about destruction of common sense – the people cease to understand what they are talking about and how they are expressing their thoughts. This is due to the fact that the new words have no stable connections in the language and no developed lexical niche, which explains the term “amoeba words” introduced by S. Karamura in his “Paths of a practical mind” to describe these vocabulary items that have integrated into the language and ruined it. Thus, another function of censorship is to fight newspeak, as usage of this linguistic system presents defeat in the war over common sense: to accept opponents’ language, to adopt expression means of wolves “in sheep’s clothing” means to gradually become their captive. Even if there exists conception of words different from the notions used by conversation partner, anyway one gets trapped in a semantic pitfall due to lack of comprehension of the meaning behind the word, which is often polysemantic and even covert. In this case censorship is supposed to employ new technologies to put up effective fight against newspeak and manipulation technologies, and not use technologies to fight common sense, which is exactly what is going on in this day and age.

Censorship doesn’t disappear as a notion, what can be lost is the term, but not the functions or methods through which a specific part of society exercises dosage and control over information flows for the masses. Owing to information revolution, information flows cannot be controlled through conventional methods anymore, and consequently, new methods were elaborated to fit into modern practices. In order to clearly understand what it is exactly that has to be altered in public conscience and society in general, it is imperative to research new censorship technologies and their influence upon mass conscience, as well as possible and current consequences

of their usage for financial or political reasons for the benefit of a specific class.

REFERENCES

- Fromm E. (1990). *Escape from freedom*. Progress Publishing House. Moscow
- Kara-murza S.G. (2000). *Manipulation of conscience*. Moscow. Algorithm publications.
- Prohorov E.P. (1993). The press – the “fourth power”? // Moscow University Reporter. Series 10: Journalism. №2.
- Toffler A. (1990). *Powershift: Knowledge, Wealth, and Violence at the Edge of the 21-st Century*. New York. London

INNOVATION RESEARCH OF MORAL EDUCATION BASED ON EXCELLENCE ENGINEER TRAINING PROGRAM

Dr. Li Hong-Mei, Northeast Petroleum University, School of Marxism Studies,
Daqing, 163318 China

E-mail: xueyuanlhm@163.com

MSc. Han Dan, Northeast Petroleum University, School of Marxism Studies,
Daqing, 163318 China

E-mail: 1779495243@qq.com

Abstract: Many colleges and universities in China have clearly realized that in the process of operating the “Project for Educating and Nurturing Outstanding Engineers” (PENOE), the old educational contents and methods are not suitable for the new developing moral education anymore. Accordingly, as the engineering education is going into reform, it’s necessary to make a change and improve the contents and methods in order to help accelerate the reform as well as achieve the educational goals. The paper briefly explains and discusses the theories of PENOE and moral education at the beginning of the thesis; furthermore, with the reform of engineering education as the background, this paper analysis the issues that exist in moral education in colleges and universities and debates why they exist in the first place and comes up with a conclusion and several solutions to solving the issues in the end.

Keywords: Excellent Engineer, Moral education, Innovation Research, Engineering Ethic

1. INTRODUCTION

In June 2010, “Project for Educating and Nurturing Outstanding Engineers” (PENOE) (with a 10-year duration) was drafted and carried out by Ministry of Education of People Republic of China (MEPRC) and its fellow ministries and commissions in order to help China find a new path of industrialization with Chinese characteristics and become an innovation-oriented country as well as strengthen and deepen the strategy of reinvigorating China through human resource development. The aim of PENOE was to create and develop a group of engineering technicians of all kinds who are more capable of innovating and adapting to the development of the

economical society (Lin, J. (2011), Wang, H. (2010)).

As an outstanding engineer, he/she does not only possess such basic qualities as obeying the citizen and professional ethics and taking on the community responsibility, more importantly, they must have this specific quality which is determined by the training pattern of PENOE and needs to be spread and passed down in colleges and universities through moral education since the project itself is facing problems. (Sun, Q., & Political, (2006), Zhang, Y. C., & Cao, Q. Y. (2008)).

PENOE has been going on for almost three years and during that period of time, over 190 schools in China have joined the project and have been actively refining and adjusting their plans and methods for training ever since to achieve the educational goal of PENOE. Moral education, on the other hand, as a big part of college-and-university education, it’s old-fashioned contents and methods are not adaptable to the new training pattern and needs to be changed and improved. New requests are made to help create and move forward new theories and thoughts, thus under such new and different circumstances, an innovative research for moral education becomes more meaningful.

2. BRIEF INTRODUCTION TO OUTSTANDING ENGINEERS

Ever since the people’s Republic of China was established, especially after it

had reformed and opened to the outside world, its advanced engineering education has made great progresses and accomplishments. More reasonable and proper educational structures and systems have been built, besides that, more and more people have been inspired and motivated to devote their enthusiasms and energy to push China closer to becoming a powerful industrial country and support and help form and complete its industrial system. According to MEPRC's record, there are 3.71 million undergraduate students as well as 470 thousand graduate students majoring in engineering, which are far more than the total amount of engineers in Germany. With the ranking at a high place on the list of the countries with the most college graduates with a degree in engineering each year, we can easily call China one leading country of engineering education. However, it still has a long way to go before we can call it a powerful country of engineering education.

As to change the situation, MEPRC has drafted PENOE and has been applying it since June 2010. It's a big move China has taken in the reform of MEPRC to carry out the contents of Outline of China's Medium-and-long-term Educational Reform and Development (from year 2010 to 2020) and Outline of China's Medium-and-long-term development of Talents (from year 2010 to 2020) as well as to accelerate the process of its transformation from a leading country to a powerful country of engineering education. Its aim is to create and train a group of highly qualified engineering technicians of all kinds who are well capable of innovating and adapting to the development of the economical society, besides, it must serve to help China find a new path of industrialization and become an innovation-oriented country as well as strengthen and deepen the strategy of reinvigorating China through human resource development. By the time of March 2012, PENOE has covered 29 provinces and cities with 194 colleges and universities involved; over 960 engineering

educational center's have been established based on the school-enterprise cooperation for students to do engineering design and practice.

PENOE has three characteristics:

1. The enterprises should be deeply involved in the training of engineers. For a very long period, the enterprises have not really participated in the settings for majors, courses and training molds when it comes to engineering education in colleges and universities, thus, the involvement of the enterprises in the training of engineers should be recognized as something important and necessary as to proceed the project.

2. Colleges and universities are required to train engineering talents by both general and professional standards. The combination of general and professional standards is crucial when it comes to training engineering talents since the ultimate goal of engineering training is to help the enterprises move forward and adapt to the development of the society.

3. Enhance students ability of engineering and innovation. One of the goals of PENOE is that, with the right training mold, the students learn to use what they have learned in class in actual work and from their ability to innovate and practise in the process and help support and push the development of China's science and technology.

3. MORAL EDUCATION

Moral education is a social practical activity where a society or community uses certain concepts, political perspectives and moral standards to affect the members within a purposeful systematically and organized way in order to help them meet the standards of social morality. In addition, moral education is the priority in building the moral and ethical civilization as well as a major method to resolve social conflicts and issues. Marxism, as a scientific theory

and actual belief, plays an important role in school's moral education. Since to the fact that students in college/university are at a crucial stage where their beliefs and perspectives, which are going to affect the rest of their lives, have just begun to form and are still unstable, it's reasonable to spread Marxism through students and help them establish correct and proper view of life and value.

Professional moral education is one of the major contents of moral education. In social value expectations, there are certain professional moral standards and whether or not the students are able to meet those standards directly shows the effects of moral education, like how the students see and treat their future career and whether or not they manage to use their morality to keep their professional behavior under control, they're both determined by their professional morality. To nurture and develop the students professional morality is to enhance their professional moral consciousness, which appears in moral education and also expands into their future career, and that's why to outstanding engineers, improving their professional morality is the goal of moral education and also the key to the education of PENOE.

4. FUNCTIONS OF MORAL EDUCATION IN THE EDUCATION OF OUTSTANDING ENGINEERS

Moral education regards the students as the subject, which aims for creating and nurturing their overall qualities and allowing them to liberally develop.

4.1. Moral education benefits the development of the students' personal qualities

Firstly, moral education helps point the right political direction for the outstanding talents. As a part of college students, the outstanding talents should have

faith in the leadership of the Community Party of China (CPC) and their decision to go down the path of communism and learn to merge the central value of communism into their personal values.

Secondly, moral education helps improve and develop the professional morality of outstanding talents. Only with the right and proper professional morality, will the outstanding talents efficiently serve the society as well as achieve their social values when they eventually go into their workplace as the constructors of socialism.

Finally, moral education benefits the outstanding talents' overall development. It is one important goal of moral education to help the students thoroughly develop, which means that the outstanding talents do not only possess the knowledge and skills of engineering, but also the spirit and qualities of civilization. At the same time, psychological education is necessary which helps discover the students' potential abilities and help them from their personality thoroughly.

4.2. Moral education is helpful to develop students' ability to innovate

First of all, moral education is full of knowledge that opens the students eyes, extents their knowledge structure and widens their thinking range. In addition, it allows the students to think in a scientific way and inspires their innovative spirit so that they can actively devote themselves into the developing innovative practice.

Second, moral education provides a suitable environment for the outstanding talents to develop their innovative ability. On one hand, moral education in college and university helps the students realize and recognize the importance in innovation and respects innovative talents and their achievements; while on the other hand, it provides a suitable social environment filled with brilliant public opinion as well as the spiritual dynamics and social support to discover and develop the outstanding talents' innovation ability.

Last of all, "Practice is the only standard to test the truth". Moral education encourages the outstanding talents to practical activities actively so that they can improve and sharpen their innovation ability and learn to combine book knowledge with practice, which is beneficial to the innovative methods.

4.3. Moral education is helps cultivate the innovative methods

Moral education focuses on the cultivation of the students "personal abilities", of which, the initiative is the basis, while the autonomy is the core, and these two together are the essential conditions in finding a creative method. Initiative, which is the opposite of passivity, controls the subject with an explicit purpose and lets the subject take active actions and use all the positive elements to form a plan. Autonomy, on the other hand, comes with the leadership. Those who are creative are those who are independent, namely, "we are our own masters" and we dominate and control our destiny and are to create and change our future.

Engineers are to invent and create, that is why they see their innovation abilities as their lives, and thus, engineering education must allow the students to grow their personalities to the fullest and help accelerate the development of their innovation ability. Besides, in order to have the students values recognized and their development accelerated, moral education should be "people-oriented", namely, a. Understand and respect the students; b. Inspire and motivate the students' initiative; c. Cultivate the students' abilities to comprehend and solve problems.

5. ISSUES IN MORAL EDUCATION IN TRAINING THE "OUTSTANDING ENGINEERS"

PENOE targets a special group of people of which the educational goals, training molds as well as the teaching contents are evidently although than those of the regular college students, hence, colleges and universities must be aware of the existing problems in moral education, analyze the reasons and come up with doable solutions.

5.1. Educational goals lack pertinence

Due to different social requirements, changes of the times and individual differences, the goals of moral education should also be different in order to help the students grow and develop. However, in the actual operations, colleges and universities tend to set up a standard goal, which oppresses the students to develop their personalities.

With a single educational goal, it's hard to intrigue the trainees of PENOE, thus, to make moral education more of pertinence and create highly qualified and creative engineering talents, instead of spoon-feeding the students, communicate and exchange ideas and thoughts with them; other than that, allow the students to liberally develop their diversity and mobility under certain conditions.

5.2. Educational contents are conservative

The original old-fashioned educational contents cannot keep up with the new developing contents of PENOE anymore, as a result, based on the outstanding engineering talents' academic characteristics and training standards, draft more targeted educational contents as to meet the standards of training the outstanding engi-

neers. Specifically speaking, this goal can be achieved in the three aspects below:

Firstly, engineering is a combination of several different subjects, and with the modern science and technology growing and developing and the engineering complexity increasing, the boundaries between different subjects are becoming more and more fuzzy which tightly connects engineering with civilized subjects like sociology, political science, jurisprudence and culture, which means engineering students must equip themselves with enough humanity knowledge because those who are only dedicated to the skills would never make outstanding engineers.

Secondly, another important training requirement is "facing the world," in another word, the students must be able to and good at accepting and absorbing foreign cultures and successful experience, especially when they are in contact with heterogeneous culture, they understand how to wisely choose and abandon and create new technology in cultural collision.

Finally, even though Marxism is commonly taught in colleges and universities, other political theories that co-exist with Marxism and are trending in other countries are not well-known and easily forgotten, which makes it hard to distinguish when there's nothing to compare with. There is a fact that as China is going through a crucial transformation of its society, yet its moral education is left far behind by its social development, and sadly we can't ignore that.

5.3. Educational methods are not flexible

Moral education should not only stick to being a good way proved by practice, but also keep moving forward with new methods. As for moral education of engineering students, there are a few flexible methods are to be taken into consideration:

Firstly, enrich educational resources. Rely on the enterprises and projects that

are large, advanced and representative in the related industries to set up an educational demonstration zone and push forward the theoretical contents of moral education by letting the students experience and understand the enterprise culture, professional qualities as well as the needs and requirements in developing the modern enterprises.

Secondly, enrich the educational carrier. Use educational means of information technology to the fullest, for instance, teachers can use slides or PPT with illustrations and texts on them while teaching to get the students more interested in learning. It helps the engineering talents understand and realize how significant information technology is in engineering practice and lets them be used to extending their creativity with information technology.

6. IMPROVE THE BASIC COUNTERMEASURES OF MORAL EDUCATION IN THE CULTIVATION TO "EXCELLENCE ENGINEER"

6.1. It must comply with the modern educational law

Instead of focusing on spoon-feeding and merely transferring book knowledge, colleges and universities should gradually strengthen the students social and enterprise practice and improve their learning initiative (Li, B., & Xie, B. Z. (2000)), in the meantime, encourage the students to actively do more research-oriented study to improve the students practice and innovation ability. As for the teaching methods, moral education should be integrated into all aspects of engineering talents' professional study such as teaching. Scientific research and social practice; besides, dig in deep and discover an all types of moral education resources and enhance the teachers' moral education consciousness, which is while teaching, they remember to

stress moral education and help the students to naturally and consciously reinforce their ideological and moral self-cultivation and political consciousness while learning professional knowledge.

6.2. Teach the students the definitions and meanings of gratitude and ethics as to increase their feelings of social responsibility

Steer the students behavior in their daily life and imperceptibly influence their everyday life to raise their humanistic concern and let them know that part of their success comes from the society our nation and their family which helps them from the sense of gratitude and turn the sense into the behavior of gratitude and give back to society which will lead to the increase of the outstanding talents' feelings of social and environmental responsibility.

The ethical education of the outstanding engineer (Liu, S. H. (2004)) aims at creating engineers who can take on social responsibility: They understand the influence and impact engineering has on human society and the nature from the global and social perspectives; they understand their professional and ethical responsibility; they clearly know how their job as an engineer affects the humanistic social and natural environments; they comprehend and grasp the ethical standards as well as the related laws and safety standard; they are equipped with the basic ability of moral inference and know how to tell right from wrong.

6.3. Strengthen the outstanding talents' humanistic education

Change the current situation where the engineering talents pay little attention to moral education and strengthen the humanistic education and; based on the edu-

cation group's characteristics, transform the profound knowledge into something simple with words easier to understand while teaching; Give more examples of advanced figures and their stories in engineering industry to meet the engineering students' spiritual needs; Stress the outstanding spirit and attitude and steer the students to a higher spiritual level.

6.3.1. Enhance the professional moral education of the outstanding engineers

One of the most important contents of moral education is professional moral education, which is also the major means to help the college students form the right professional moral qualities. Plus, as the future engineers, it's necessary for engineering students to cultivate their professional morality of engineers based on their personalities and characteristics (Kuang, Y. (2009)).

As the cultivated targets of outstanding engineers, the engineering students do not only need to obey a few basic professional moral principles and standards such as the principle of collectivism and moral standards of socialism, but also pay more attention to the following aspects : First of all, stress the importance of engineering ethical education in the teaching of moral education. Throw in a few cases which are tightly related to the students future careers and lives to introduce and explain the contents and meanings of what the students are going to do and how it will affect the environment, humans, society, their family and themselves; clarify what qualities of an engineer the engineering-oriented jobs require as well as how to handle the interpersonal relationship in professional activities and events. All of these are significant in establishing the right moral consciousness of the students. Second, improve their legal attainment. In the market economic environment, engineers' economical activities and behaviors are becoming more and more active and some people fail to refuse the temptation of the profits and commit

crimes. Actually, there is no un-passable ditch or un-crossable boundary between moral standards and laws, that is why some related laws and national policies should be taken into consideration when it comes to morale education. While explaining those related laws to the students, it's crucial to use real the cases which that students can relate to arouse their interests in learning and improve the teaching quality.

On one hand, bring in abundance of real case regarding engineering morality and come up with questions for the teachers and students to debate and study; while on the other hand, as to enhance the students engineering ethical consciousness, the principles and consciousness of engineering ethics must be stressed in the students graduation projects, and considered one standard to evaluate the projects. The colleges and universities should try their best to create opportunities and provide places for the students so that they can designedly practice and experience the work at the front line. Involving in engineering design, arrangement, testing and evaluation, they will personally experience and understand the constantly developing influence engineering activities have on humans' lives, and comprehend the rich ethical values in engineering activities.

6.3.2. Focus on engineers' creativity

Engineering students handle professional skills and scientific research, that is what makes it crucial for them to have innovation ability and with solid professional knowledge structure, they are allowed to develop their personalities to the fullest and discover other potential abilities within. Teaching isn't merely about delivering the knowledge or simply knowing something, it's also cultivating the students interests and abilities, thus the teachers should provide a flexible and open learning environment, where the students can select different courses based on their knowledge basis, interests and characteristics in order

to inspire their imagination and motive their creativity. To achieve that goal, the teachers are required to provide the students with more selective courses regarding moral education and look for and every single possible resource and make the most of them, so that the students are able to select suitable courses and fully develop their personalities to cultivate their creativity and autonomy (Td Li, (1994)).

Form a moral education study group where the members can finish their assignments through discussing and exchanging thoughts and ideas, which helps expand their thinking range and stimulate their potential in learning. Other than that, the teachers can require the students to consult references, discuss and take advantage of the Internet to do a PPT presentation and answer the questions asked in class, which exposes the students to the latest research on moral education and at the same time compensates for the fact that they lack social and humanistic knowledge to thoroughly improve their overall qualities.

6.3.3. Use new methods of moral education

It is necessary to come up with new educational methods to keep up with the developing society while sticking to the traditional ones when it comes to morale education.

Firstly, strengthen the link to the related enterprises, engineering and project and fully make use of the resources from inside and outside school to help the students comprehend and accept the concept of moral education and put the concept into actions during the practice; establish a demonstration zone of moral education and invite the advanced figures from enterprises or communities to communicate and exchange ideas with the students and encourage them to be a part of the new teaching mold in order to move forward the theory of moral education on how to have the

college students personally experience and understand the development of the society, the progresses made in our economy, China's reform and openness to the outside world and professional qualities.

Secondly, use the Internet to the fullest to make moral education more diverse and resourceful as to increase the efficiency of moral education and its management. In addition, with the help of the Internet, teachers and students can equally communicate and help each other. For instance, polls or psychological tests allow the teachers to understand the students' current thoughts and behaviors and offer moral education and psychological counselling accordingly.

Finally, improve the ideological and political level of engineering teachers to introduce the methodology of moral education while teaching and help enhance and increase the students comprehension of moral education to get them intrigued and motivated in learning.

7. CONCLUSION

At present, there are certain issues existing in moral education of PENOE, which are: a. The educational goals are stiff which are hard to stimulate the cultivated engineers' interests; b. The educational contents are old-fashioned and out of style and are not suitable for PENOE; c. The educational methods are mechanical and fail to inspire the outstanding engineers. Why do these issues exist? Here are the reasons: a. The educational workers don't fully understand the cultivated targets; b. The educational workers are not qualified enough; c. The old and conservative managing system gets in the way of the new exploration in cultivating the outstanding engineers; d. There are not enough investments in resources. So how do we solve the issues? Here are some solutions should be taken into consideration: a. Alternate the perspectives on moral education and enhance the comprehension of

the laws to cultivate the outstanding engineers; b. Invest more in the resources of moral education, like providing means and platforms for moral education, to change the current situation where the resource investments of moral education are not enough; c. Perfect the rules and evaluation system of moral education in the training mold of outstanding engineers and accelerate its construction process, where recruiting, training and promoting systems of human resource are established; d. Dedicate to exploring and discovering new contents and methods of moral education while cultivating outstanding engineers; e. learn from foreign engineers' successful experience of moral education in the training mold of outstanding engineers.

REFERENCES

- Cai, Z. Q. Moral education ecology and development. *Journal of Fujian Normal University*, 06(03), 15-22.
- Gao, X. M., & Pan, F.(2011). The first exploration of outstanding engineers training mode. *Guizhou Social Sciences*, 11(11), 108-110.
- Kuang, Y. (2009). Theory of the causes and countermeasures of occupational moral education inefficiency. *Chinese Vocational and Technical Education*, 09(03), 18-20.
- Li, B., & Xie, B. Z. (2000). Modern education technology and the humanities spirit realize. *E-education research*, 12(10), 14-17.
- Lin, J. (2011). On the professional training program of a plan for educating and training outstanding engineers. *Center for Engineering Education Research*, 11(04), 10-17.
- Liu, S. H. (2004). Engineering ethics education and the cultivation of the college students' moral quality in science and technology. *Journal of Beijing Institute of Technology*, 04(02), 39-41.
- Sun, Q., & Political, (2006). The essence content of moral education. *Social Sciences in Nanjing*, 06(03), 56-61.
- Td Li, (1994). Idea of creative teaching engineer training work. *Digest of Management Science*, 94(1), 33-34.
- Wang, H. (2010). Excellence engineer's cradle of training applied creative talents. *China University Teaching*, 10(08), 9-10.
- Zhang, Y. C., & Cao, Q. Y. (2008). Discuss the position on the purpose of the moral education in China. *Jiangnan*, 08(01), 35-38

M-LEARNING - A NEW FORM OF LEARNING AND EDUCATION

Dr. Lazar Stošić, College for professional studies educators, Aleksinac, Serbia

E-mail: lstosic@vsvaspitacka.edu.rs

Dr. Milena Bogdanović, assistant professor, University of Niš, Teacher Training Faculty, Vranje, Serbia

E-mail: mlenab@ucfak.ni.ac.rs

Abstract: At each step, the Internet and information technologies are changing many aspects of life. We live; we buy, work, manage, and communicate new ways that technology has enabled. Information and communication technology are pervasive the technology of today. It finds application in every branch of industry, and in all areas of education and the basis for the successful operation of all social and state structures. Information and communication technology (ICT) provides a good foundation for creative and effective use of knowledge. Using mobile technology in education changes the basic view of learning when, where and how to learn. M-learning is a unique type of learning because students can access the lessons anytime, anywhere. Mobile learning is learning supported by mobile devices. It represents a new form of education. The notion of mobile learning covers a wide range of devices used for learning at any place at any time. These include various wired and wireless devices (mobile phones, PDA, iPod, Sony PSP, notebook devices...). M-learning offers the possibility of using mobile devices combine many benefits of e-learning in a single portable package that can be used at any time and anywhere using mobile devices. Mobile devices are emerging as one of the most promising technologies to support learning as they offer new opportunities that do not offer static devices.

Keywords: m-learning, Information and communication technology, e-learning, distance-learning.

1. INTRODUCTION

Training and education of young people today should not be omitted from the process of ICT education. Application of technology in society has led to such a stage that ICT skills with the knowledge of reading, writing and numeracy considered starting an elementary literacy.

We are all aware of the traditional ways of learning in the classroom where the teacher presents the lesson in front of the table. The progressive growth of information and communication technology has

changed the very form of learning. The problem of computerization of teaching and learning has a great social and pedagogical importance, and deserves to be further studied, the more it is this issue so far in our under-studied. However, many studies worldwide have led to the realization that the process of computerization of teaching and learning is necessary and inevitable given the "explosion" of new knowledge, expansion of education and evidence of ineffectiveness of traditional teaching and given the rapid development of pedagogical possibilities of computer technology (Stošić L., 2010). The innovative nature of a teacher includes the introduction of practical results of teaching activities in psychological and educational research (Stosic, L., & Stosic, I., 2013).

Learning is moving from traditional learning, learning through audio lessons, video lessons, e-learning, distance learning to this vision of mobile learning - m-learning. Mobile learning is a kind of form of distance learning and e-learning. Distance learning is the oldest form of learning. E-learning offers new methods of distance learning that is based on computers and new technologies. With the development of ICT, distance learning has taken the form of e-learning. Further development of ICT and e-learning takes a new form of learning - mobile learning.

2. WHAT IS E-LEARNING?

E-learning is based and oriented on information technology and pedagogy. In the area of e-learning as the transfer of knowledge and skills over the Internet have growing impact web technology intelligence. Of concern to the application of web

intelligence information systems on the web, ontological engineering, semantic web, interaction between people and computers and computer media, information management on the web, search and discover information and knowledge on the web, web agents, autonomous systems Agents, web mining and others. (Wintel, 2005-2007).

In the e-learning we have four different disciplines:

1. Distance education (courses as a collection of files associated with a number of hyperlinks of multimedia elements, reigning world the concept of distance learning involves the use of text materials, video conferencing and multimedia presentations),
2. Education at the right time (occasionally sends employees to training in certain disciplines),
3. Education using the Internet (using resources that are found on the Internet) and
4. Lifelong learning (concept of "lifelong student" who is always changing and improving the job).

Unlike traditional learning, which is mainly based on questions and answers, e-learning is a set of the following processes: data collection, creation stories (research), creations (structuring of knowledge), interaction (communication with other students and experts in the wider community), setting questions and answers provide a virtual teacher. E-learning is project-oriented, allowing continuous access to new knowledge and continuous improvement. Online education is activated to a greater degree of creative potential of teachers and students, alleviate or eliminate their geographical isolation, to offer greater object of study and, not least, saving time and money. Weak side of e-learning, on the one hand, represent problems with the filtration of information, rapid obsolescence and changing the content, quality control and evaluation of resources, on the other hand, e-learning requires increased engagement in teacher preparation courses and in master-

ing the technology and the web software, as well as higher levels of activity with students.

One of the essential elements of the infrastructure to implement the concept of e-learning is a web site. They can be of different types, for example, simple or static created in HTML, flash web site with animated graphics pages, presentations in the form of web services with programmed component exchange and modification of information, the dynamic database, a commercial real-time to handle different payments or business in which the handle and synchronize different business processes and the like. According to the second division there are three types of web sites. The first type consists of an integrated presentation consisting of the basic, dynamic forms and modules (forums, sections, links, files and photo album), mail server, web-mail services, and other statistics. The second type consists of a standard presentation, which consist of the basic, dynamic forms (surveys, contact forms, files, links, forums), and other statistics. The third type is a portal web site. Portal is a modern information system for setting and controlling the content of dynamic character. The main control system and administration is performed by an administrator. It contains the basic side, dynamic elements, web-mail, the panel's report, the administrative menu, contact form, multi-menu system, and automated photo album, a system for the news section for the files and links, the associated dynamical systems (e.g. private messages, section to represent users, the survey system to check the polls) (Bogdanović, M., 2009).

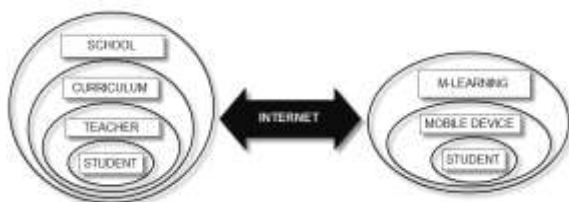
3. THE BEGINNINGS OF M-LEARNING

The concept of m-Learning, as well as the first type of learning with mobile devices, first appears in 1970s and 1980s. In those years, Alan Key and his colleagues proposed to make a mini computer that

would replace the book. Name that computer was the Dynabook. First, a serious form of this type of learning occurs during the 1990s. Then the company Palm offered various discounts to educational institutions and companies that are using mobile learning in the PalmOS platform. It was not until the early 21st century, the European Commission began to support projects related to m-learning and multi-country project called MOBIlearn.

A. Characteristics of m-learning

One of the leading companies in the m-learning Mobile Learning Network MoLeNET. According to their definition of mobile learning involves connecting via download and installation of materials and work over a wireless network or mobile phone, and connect with the systems in institutions (Virtual learning environment - eng. Virtual Learning Environment - VLE). According to them, m-learning has the same great importance and in education, and in commercial environments. Because of easier portability m-learning allows for greater advantage of e-learning's (Picture 1).



Picture 1: M-learning environment

The three main components of m-learning are the following:

- The functionality of the hardware,
- The functionality of the software and
- Connections.

B. Devices for mobile learning

Mobile learning is inconceivable without the use of mobile devices. Bid and purchase of mobile devices is high and the availability depends on their prices. The advantage of mobile devices is that they almost anyone can connect to the global network called the Internet world.

Today several communications technologies provide services to mobile devices. Some of them are:

- Global System for Mobile Communications (GSM)
- Wireless Application Protocol (WAP)
- General Packet Radio Service (GPRS)
- Bluetooth
- IEEE 802.11
- Infrared Data Association (IrDA).

The problems of mobile devices:

- Small PDAs and mobile phones have small screens and limited data display.
- Small keyboard PDAs and mobile phones make it difficult to enter data.
- Mobile devices have a memory.
- It is necessary from time to time to change that buy a new battery.
- It is not always possible for an application that is equipped for computer use on a mobile device.
- It is very difficult to keep track of videos on small devices.
- Price-to-use wireless communications is low.

The most common mobile devices used for mobile learning are:

- Mobile phones
- iPod
- Tablet RS
- Personal Digital Assistant (PDA)
- Smart phones

C. Mobile phones

In first time when cell phones appeared no one even suspected that their use will be overcome only purpose of conducting telephone interviews. Over time, the size and price of mobile phones decreased and become available to every individual. In the end of 2011 there were 6 billion mobile subscribers (Twarog, L., & Pereszlenyi - Pinter, M., 1988). From an ordinary phone calls and sending SMS messages, today's mobile phones offer a variety of applications that can be thrown into the shade of a personal computer. With the development of Internet access, the development of applications, Bluetooth, WAP (Wireless Application Protocol), GPRS (General Packet Radio System) and UMTS (Universal Mobile Telecommunications System) are reported and the possibility of learning through mobile phones. Reported were the first pioneering interventions in the field of foreign language learning. Mobile devices are most effective when combined with other activities, traditional learning and other forms of information technology (Librero, F., Ramos, A. J., Ranga, A. I., Trinona, J., & Lambert, D., 2007). Pereszlenyi-Twarog & Pinter (The World in. 2011 ICTFaCTs and Figures). are used mobile phones as a form of distance learning - distant language with feedback and assistance. In 1996 employed at Brigham Young University-Hawaii taught the English language through a course and distance learning from Hawaii to Tonga over the phone and computer (Green, B. A., Collier, K. J., & Evans, N., 2001). These were the first procedures using mobile phones for learning foreign languages. The first real project using mobile phones in language learning has been developed by the Stanford Learning Lab who has studied its use in language learning. Later, Thornton & Houser (The World in. 2011 ICTFaCTs and Figures) have developed several innovative projects using mobile phones for learning English in Japanese university. A similar program created in 2005. The Levy & Kennedy (Levy, M.,

& Kennedy, C., 2005). start to learn Italian in Australia. Via mobile phone, text messages were sent in the form of words, definitions and various sentences with a request to get answers to questions and quizzes. Later, they appeared largely foreign language learning projects. In addition, that time is over. The concept was first developed moblogging Miele, G. (2005, January).

4. THE DIFFERENCES BETWEEN THE M-LEARNING AND E-LEARNING

M-learning offers a unique opportunity for both teachers and students. The speakers will greatly shorten the time and effort in setting up and repeat the lessons, while students will be able at any time and as much as they want to repeat the lesson. While the e-learning lessons must constantly monitor and respond to them, the m-learning is the exception. While e-learning requires learning from the classroom or rooms, m-learning is a new form that will break those limits. M-learning is particularly popular with younger generations who grew up using these mobile devices.

Benefits provided by the mobile learning e-learning:

- Can be used anywhere at any time;
- Many mobile devices are much cheaper than computers;
- Mobile devices are much smaller in size and are lightweight, allowing them to be worn by themselves at all times;
- Many students rely on the services of mobile learning...

5. CONCLUSION

Learning is a continuous process and does not end with school education. Daily training and education is inevitable (life-long learning, Chapter 12, Article 96 of the Law on Higher Education of the Republic

of Serbia, 2005). Many successful companies organize constant training, training of staff, visits to trade fairs and seminars, and others. Employers in the market recognize diplomas and certificates at less obsolete programs. Some companies (e.g. Microsoft) make their certificates and licenses on an annual renewal of deposit or some other level; it is due to changes in technology and the emergence of new solutions that require competence in the market. It is necessary to constantly be learning at this time cannot be imagined without the use of mobile devices that enable learning anytime and anywhere. M-learning is the future of e-learning. The new form of learning takes a new shape that is more accepted among younger generations grow up with mobile devices. M-learning can be characterized as a transition from distance learning, e-learning to m-learning.

REFERENCES

- Bogdanović, M. (2009). *E-learning, distance learning, Proceedings V International Symposium, Technology, information and education for learning and knowledge society*. Faculty of Engineering, Novi Sad, ISBN 978-86-7447-083-1, 299-308.
- Green, B. A., Collier, K. J., & Evans, N. (2001). Teaching tomorrow's class today: English by telephone and computer from Hawaii to Tonga. Distance-learning programs (pp. Alexandria, VA: *Teachers of English to Speakers of Other Languages*, Inc.
- Levy, M., & Kennedy, C. (2005). In A. Kukulska-Hulme & J. Traxler (Eds.), *Mobile Learning: A Handbook for Educators and Trainers*. London: *Taylor and Francis*.
- Librero, F., Ramos, A. J., Ranga, A. I., Trinona, J., & Lambert, D. (2007). Uses of the cell phone for education in the Philippines and Mongolia. *Distance Education*, 28(2), 231-244.
- Low, L., & O'connell, M. (2006). Learner-centric design of digital mobile learning [online]. Issue: 3, Publisher: *Online Learning and Teaching*. Paper presented at. http://www.academia.edu/941536/Learner-centric_design_of_digital_mobile_learning
- Stead, G. (2005). Moving mobile into the mainstream. Paper presented at the mLearn 2005: 4th World Conference on m-Learning, Cape Town, South Africa. <http://www.mlearn.org.za/CD/papers/Stead.pdf>
- Stošić L. (2010). *Information education and children's development*, Инновационный потенциал субъектов образовательного пространства в условиях модернизации образования, Россия, Ростов-на-Дону), pp. 252-258, УДК 378, ISBN 978-5-8480-0797-8
- Stošić, L., & Stošić, I. (2013). Diffusion of innovation in modern school. *International Journal Of Cognitive Research In Science, Engineering And Education (IJCRSEE)*, 1(1), <http://www.ijcrsee.com/index.php/ijcrsee/article/view/7>
- The Mobile Learning Network MLeNET. <http://www.molenet.org.uk/about> [30.01.2012.]
- The World in. 2011 ICTFACTs and Figures. <http://www.itu.int/ITU-D/ict/facts/2011/material/ICTFactsFigures2011.pdf> [30.01.2012.]
- Thornton, P., & Houser, C. (2003). Using mobile web and video phones in English language teaching: Projects with Japanese college students. In B. Morrison, C. Green, & G. Motteram (Eds.), *Directions in CALL: Experience, experiments & evaluation* (pp. 207-224). Hong Kong: English Language Centre, Hong Kong Polytechnic University.
- Twarog, L., & Pereszlenyi-Pinter, M. (1988). Telephone-assisted language study and Ohio University: *A report*. The Modern Language Journal, 72, 426-434.

THE ROLE AND IMPORTANCE OF THE INTERNET IN CONTEMPORARY TOURISM IN TRAVEL AGENCIES BUSINESS

MSc. Ivica Batinić, Vocational School, Vukovar, Croatia
E-mail: ivica.batinic@email.t-com.hr

Abstract: The increasing competitiveness in the global tourism market encourages tourism operators to invest more in promotion, resources, knowledge and quality in order to achieve satisfactory growth. Therefore, it is extremely important to be in touch with the latest technological trends and have the knowledge required to effectively respond to the challenges of global competition. Internet technology provides high-quality and efficient operations in all economic sectors, including the tourism industry. In this paper, the changes in tourism industry caused by the introduction of Internet technology and advantages and disadvantages of using the Internet in contemporary business travel agencies were analyzed. Through this work, the impact of the Internet technology on marketing activities of contemporary travel agencies was also analyzed.

Keywords: the Internet, tourism, travel agency, marketing, user

1. INTRODUCTION

Any commercial relationship between subjects of production and consumption is established by specific communication technology. From oral transmission, through fairs, printing press, telephone to television and electronics, i.e. information technology, technology of the communication market has been changing, and consequently the market relations character has changed. Electronic technology has allowed for the first time in history for market participants to simultaneously communicate at a distance, which introduced a new era in the field of marketing communications. The network of communication satellites has enabled the fastest information transfer among all parts of the world, i.e. the Internet. The Internet, as a set of networks around the world, represents the biggest computer system which allows receiving, process and exchange of

information to millions of computer users. A huge amount of data can be accessed at any time and any place allowing the user of the Internet a global access. The Internet technology provides a new way of conducting business in all electronic sectors. The Internet technology has become an important source of information according to which various business strategies of subjects in tourism industry are formed. With the help of the Internet, a new possibility appeared for subjects in tourism industry to successfully promote and sell services and products to comply with demands, needs and desires of consumers.

2. THE ROLE OF THE INTERNET IN CONTEMPORARY TOURISM

The appearance of the Internet and the incredibly rapid development of highly sophisticated computer and telecommunication technology have made the world a global village in a real sense. 'Communication network satellites provide the quickest and the cheapest data transfer to all parts of the world, a great agreement among thousands of computer systems that communicate with each other is represented by the Internet.' (Kent, P. 1994). Development of information technology and the creation of computer networks and the Internet have enabled a new way of communication. The internet provides a better access to numerous sources of information around the world, as well as direct communication with all users. 'The Internet is a collection of computer networks around the world and as such is the largest computer system that millions of computer users can use and

share all kinds of information: numbers, text, sound and image. '(Gates, B., 1999).

The Internet has become a support to more complex and critical functions in tourism and hospitality industry and it contributed to its significant innovation. Due to the appearance of the Internet, there have been some changes in the tourism subjects business and those are the following:

1. Each serious subject in the tourism and hospitality industry has a website that can be classified into four broad groups: 'holding corporation identity websites, chains, concession and membership websites, websites of individual sites and facilities, and portals and vortals.'(Koelzer, W., Cox, B., 2005). 'Portal can be defined as a vehicle that offers a rounded set of services for specific well-defined group of users.'(Kalakota, R., 2002). 'Vortal is a website that provides information and resources about a particular and specific industry.'(Webopedia - On line Computer Dictionary for Computer and Internet Terms and Definitions).

2. 'The Internet offers the possibility of expansion, rapid data transfer and flexibility (websites can always change, the changes are immediately visible and are not limited to space and time).'(Raza, I., 2006).

3. 'Contemporary business in tourism market is characterized by the implementation of various booking systems into business systems of travel agencies, hotel chains, airlines, car rental companies and other participants in tourism product formation.'(Dobre, R., 2005).

4. Organization and distribution costs are decreased in various tourist subjects business conducting (travel agencies, hotel chains, independent hotels...).

5. New intermediaries on the Internet are created and traditional ones must change their role.

6. The Internet allows high-quality and effective market research and 'industrial espionage'.

3. ADVANTAGES OF THE INTERNET USAGE IN CONDUCTING BUSINESS IN CONTEMPORARY TRAVEL AGENCIES

1. In contemporary travel agencies and tour operators business, the Internet has shown to be a profitable medium of tourism promotion and sales.

2. 'The Internet represents an interesting and useful distribution channel for collecting clients and it provides the ability to identify their desires.' (Čavlek, N, 2000).

3. Promotional visualization of tourism services and products through multimedia technology leaves greater impression on potential customer than standard brochures, catalogues and leaflets.

4. Overbooking has become almost impossible because all communication problems that may cause it are removed.

5. The Internet allows the improvement of travel agencies and tour operators by speeding up communication and providing all the necessary information.

6. Product distribution and services of agencies do not depend on the quantity of printed catalogues anymore and information about them can reach millions of the Internet users.

7. The Internet provides selling services of travel agencies on demand.

8. CRS/GDS systems allow better and more efficient business with clients to contemporary travel agencies.

9. 'Greater added values which agencies, by using the Internet, can provide to clients are high-quality information, quick offer of services related to travel, fast order, express delivery and human personality.'(Ruelcke, W., 2000).

Use of the Internet in contemporary travel agencies business has certain drawbacks such as: web information is not always complete and reliable, payment security is still not on the satisfactory level, and the sale of certain products and services

demands direct communication with the travel agent.

4. THE INTERNET AND MARKETING ACTIVITIES OF CONTEMPORARY TRAVEL AGENCIES

Marketing is an integral part of conducting business in contemporary travel agencies, with the Internet becoming an essential part of media planning. The Internet provides readily available information to potential customers from around the world and it represents an important 'marketing and communication channel' that can effectively connect the subjects of offer and demand in contemporary tourism. The increasing competitiveness in the global tourism market demands of the tourist agency exceptional efforts and investments in promotion, resources, knowledge and quality in order to achieve satisfactory growth. Therefore, it is extremely important for each travel agency to follow new technological trends and to have the knowledge required to effectively respond to challenges of global competition. In order to implement the marketing concept in business of travel agencies, it is necessary to meet certain requirements:

Firstly, it is necessary for marketing to be understood and accepted first by governing bodies of the agency, its individual organizational units and then all employees of the agency.

Secondly, marketing applied as a business concept operates through its functions. The content of these functions in the agency should be precisely defined before implementing marketing organizations and setting up marketing services. Marketing activities of contemporary travel agencies, which greatly enhance business through the Internet, can be highlighted in the following areas: (Dulčić, A., 2005)

1. Promotion of tourism services – current assets: TV, radio, newspapers, catalogues, pamphlets, posters, the screen

technique; it is improved with promotional text, drawings, photographs and sound, 3D space, 3D photographs, media interaction.

2. Tourism services sales – unlimited database and unlimited capacity of digital media allows instant access to the tourist market free products to every potential tourist.

3. Tourist services booking – instantaneous communication between all participants of the sales process; it allows 'booking on demand', i.e. avoids excessive sales (overbooking).

In order to perform these marketing activities, particularly in selling travel packages, use of the following technologies stands out:

1. World Wide Web (the system of linked pages) use

2. Mail connection (for sending and receiving e-mail)

3. Multimedia – 'a combination of different media: text, sound and images, all computer-controlled.' (Colin, S., 1993).

4. Databases

By using the Internet, multimedia and databases it can be achieved the following: a rational and fast online communication, direct contact with the market and its business partners, integration and automation of business process, delivery and access of information

5. CONCLUSION

Internet technology is an important 'communication channel' between offer and demand in modern tourism. With the help of the Internet, there is an opportunity for all operators in tourism industry to successfully promote and sell services and products and to act in accordance with desires and needs of modern consumers. In modern travel agencies business, the Internet has proven to be an effective medium for tourism promotion and sales, so distribution of products and services no longer depends on the quantity of printed cata-

logues and brochures, but information on tourism products and services can reach millions of Internet users, and overbooking has become almost impossible because all communication problems have been removed. Marketing activities occupy an important place in the business strategies of modern travel agency, where the Internet has recently become an essential part of media planning. It can be concluded that modern Internet technologies help travel agencies in creating a unique identity, increasing efficiency and developing value-added services.

REFERENCES

- Kent, P. (1994). Vodič kroz internet, Zagreb, *Znak*.
- Dulčić, A. (2005). Turističke agencije :poslovanje i menadžment. Split, *Ekokon*.
- Colin,S. (1993). Kako radi multimedija. Zagreb, *Znak*.
- Gates, B. (1999). Poslovanje brzinom misli, Zagreb, *Izvori*,1999.
- Koelzer, W., Cox, B. (2005). Internet marketing- za hotele, restorane i turizam, Zagreb, *M plus*.
- Kalakota, R. (2002). E-poslovanje 2.0. Zagreb, *Mate*.
- Webopedia-On line Computer Dictionary for Computer and Internet Terms and Definitions*
(www.webopedia.com)
- Raza, I. (2006). Pune postelje-Marketing u turizmu,hotelijerstvu i ugostiteljstvu, Zagreb, *M plus*.
- Dobre, R (2005). *Osnove turizma*, Šibenik, Visoka škola za turistički menadžment.
- Čavlek, N. (2000). Groznica zahvatila turoperatore, UT, VOL 4/2000.
- Ruelcke,W. (2000). The „human „ factor in e-commerce in tourism, *Eletronic in tourism*. Berlin, ITB.

EXPLORATION AND PRACTICE OF SCHOOL- ENTERPRISE COOPERATION IN PRACTICAL EDU- CATION BASED ON “OUTSTANDING PROJECT”

Dr. Li Hong-Mei, School of Marxism Studies, Northeast Petroleum University, Daqing, China, 163318

E-mail: xueyuanlhm@163.com

Dr. Han Dan, School of Marxism Studies, Northeast Petroleum University, Daqing, China, 163318

E-mail: 1779495243@qq.com

Dr. Feng Zi-Ming, Machinery Science and Engineering, Northeast Petroleum University, Daqing, China, 163318

E-mail: xueyuanfzm@163.com

MSc Li Qiang, Machinery Science and Engineering, Northeast Petroleum University, Daqing, China, 163318

E-mail: 250658618@qq.com

Abstract : There will be difficulties in moving forward the project for educating and cultivating outstanding engineers, therefore, based on the outstanding project, it's crucial to come up with an efficient method to deal with the issues in the practice of school-enterprise cooperation engineering. This thesis is going to deliver the discussions in the following aspects: a. The forms and contents of how to build the school-enterprise cooperation practice; How do we conduct engineering practice; c. How do we make sure enough teachers and working places for engineering practice are provided; d. How do we guarantee the quality of engineering practice and build its related valuation system.

Key words: outstanding project, school - enterprise cooperation, Innovative Research, the ability to conduct engineering practice.

1. INTRODUCTION

The project for educating and cultivating outstanding engineers (simplified as outstanding project below) aims to create and nurture a group of highly qualified engineering technicians of all kinds, who are more than capable of innovating and adapting to the development of economical society, to pave the way for China to become

an industrially innovation-oriented country and serve for the strategy to strengthen the country with talents. Our Department of Progress Equipment and Control Engineering which has been a part of outstanding project, where the students from the outstanding class have been enthusiastically invested, has received a general confirmation since 2011. As to overcome the difficulties to get through the period where the students are to graduate and busy with their engineering practice, it's necessary for schools and enterprises to cooperate for the education and nurture of the students, and as to achieve that goal, by learning from the experience of the advanced engineering education of CPIO and developed countries, we act a 3+1 talents-nurturing mode upon the outstanding class, in another word, the students will be studying on campus for 3 years then accumulating experience by working in enterprises as interns for another year. At the same time, they will be deeply and thoroughly involved in the practice in oil and natural gas industries, which mainly contributes to forming the students' ability for engineering practice, modeling, and improving

their professional morality and ethics. Thus, as to achieve the original goals of the outstanding project as expected, it is important for us to figure out how a team full of teachers with rich experience in engineer practice should be built, how we guarantee enough working places and time are provided, how we make sure the engineering practice effectively and efficiently happens as well as how the students can gain as much experience of design-practice as they can during the engineering practice.

1. PROBLEMS EXISTING IN SCHOOL-ENTERPRISE COOPERATION

At present, many colleges and universities recruit students as teachers the same year they graduate and for those doctoral graduate students; they put a limit on the age of 33. These teachers learn while teaching at the same time to compensate for the fact that they are young and equipped with solid book knowledge, but lack of actual experience in engineering practice, which does not provide with the ability to well combine the book knowledge with the actual practice and receives bad feedbacks from the students. If the teachers don't have enough experience, it would definitely interfere with the cultivating of the outstanding engineers; on the other hand, however, the engineering technicians in enterprises, with their rich experience and extraordinary ability to analyze and solve problems in actual practice, play an important role in teaching and helping develop the students' ability in engineering practice, but it doesn't mean they are able to well combine the book knowledge and engineering practice, which means it's necessary to have them trained and pre-

pared. Besides, the students are required to have a full year of experience in engineering practice by the 3+1 program to gain more and higher ability to fit in the outstanding project. It's crucial to well communicate with the enterprises where the students do their internships to make sure the workplaces are provided by them.

2. APPROACHES AND METHODS FOR SCHOOL-ENTERPRISES COOPERATION TO CULTIVATE OUTSTANDING ENGINEERS

2.1. Forms and contents of building school-enterprise cooperation practice based on the outstanding project

Based on the theory, concept and practicing mode of modern advanced engineering education, accordingly build the 3+1 project, which is, in the 4-year period of college/university, the students are required to study on campus for 3 years while working in enterprises for another year in order to accumulate experience in design-implement by working shifts in individual segments in concentrated time. However, it does not mean the students can fully understand the whole process of design-implement with one single experience, that is why in the 4 years of college the teachers should arrange a series of activities where the students can experience the design-implement process and merge the experience into the course of outstanding project. In the early stage, the course of practice is bringing in some basic concepts and methods, but as the students experience accumulates, it gets more complex; as a result, the students are required to go through and combine what they have

learned as to enhance their practicing ability of design-implement.

In their first year, the students mainly focus on understanding the basic principles of the design process as well as how to select its concepts and use them in practice. For instance, the students make up of a team of five people and learn to build simple models for the clients as requested and experience the whole process of design and test, which helps improve their practicing ability and creativity and provides them with the opportunity to practice their ability of interpersonal communication and working as a team. In their sophomore year, the students will gather and combine what they have learned from difference courses to form a multi-course design. While in the meantime, they need to do text reports, which contain the purposes, updates, and thoughts of this design and discuss them. In the example of how to do a flexible design of pipelines in a restricted space, each team needs to sketch their design and illustrates how they design it, furthermore, they need to calculate the maximum displacement the pipes could handle in 3 dimensions and explain with what methods they calculated it; at last, they need to compare the theoretical value with the practical results and discuss the differences between them and come up with a way to improve their design, at the same time, the teachers will appraise the design based on its quality, the students' innovation as well as cooperation spirit and communication within the team and write them down in the record. In their junior and senior year, the students are going to take on more complex assignments. For example, in order to accomplish the goal of conserving energy and reducing emission to maintain a green and low-carbon environment as requested in China's 12th 5-

year plan, the students are asked to redesign the present industrial products by enhancing their performance, reducing the discharge of CO₂ and other harmful gases or cutting the cost of the materials, and give thorough consideration to multiple targets and weigh the advantages and disadvantages. Accordingly, the students need to use the plan that fits the practical situation the most and choose appropriate models and simulations based on the development to pick up the speed of the completely engineering practice. Finally, the senior students are to expand the range of design-implement in their graduation design, such as bringing in the targets needed in the business development, the students can make up of a team of 8-10 people, with students from outside outstanding class, and maintain an organized management and keep updates on the development of the design to make sure the design succeeds and eventually launch a functional experimental product.

2.2. Build a team of teachers with double skills based on the school-enterprise cooperation

A team of teachers with engineering practice ability in advanced engineering education is needed as to successfully operate the outstanding project, at the same time, build a team of teachers who are experienced in both teaching and engineering practice, as known as "teachers with double skills", based on the school-enterprise cooperation and the principle of "going out and inviting in". Usually, there are only a few teachers in an engineering institute/department with the experience in designing and developing complex engineering systems, however, there are an abun-

dance of design-implement projects needing to be done by teachers with great ability and talents, that's why it's important to "go out", which means sending over teachers of related majors to work in the production run and engineering design departments of enterprises in the aim of accumulating experience in design - implement. The "going - out" project usually takes a period of 1-2 years which is relatively a long time, thus, after communicating and discussing with the enterprises to gain the access to involvement in the technology reformation or the design and launch of new products, the teachers get to temper their spirit of teamwork and improve their overall ability of engineering practice and designing in order to independently help the students through the process of design-implement; as contrary, to "invite in" is to employ technicians and staff who are highly experienced in engineering practice and management as teachers to take on assignments like teaching professional courses, addressing speeches of related technology, guiding students in their internships in enterprises as well as directing and coaching the students to finish their graduation designs. In addition, establish long-term systems where school provides the technicians the opportunity to study again and where enterprises help cultivate teachers of engineering for school so that the team of double-skilled teachers get to develop continuously. However, it takes a lot more than rich engineering practice experience to make an excellent and qualified engineering teacher, which makes further training like integrating book knowledge into engineering practice as well as improving the teachers' teaching skills a crucial step, hence, it's necessary for senior teachers highly experienced in teaching to

train the "invite-in" technicians before they get down to business.

2.3. Enough working places for engineering practice must be provided for the students

To provide enough working places where the students get to work and gain experience in engineering practice is the basic condition for successfully operating the outstanding project. What is a workplace for engineering practice? It is a facility, which creates a working environment consisting of suitable working space and equipment. Workplace supports and encourages the students to learn and participate in the construction of products, processes and systems in engineering; on the other hand, it helps the students more easily understand and absorb the book knowledge and gain social practice experience. There are two ways to design a workplace, which are:

1. We can establish one or more workplaces by communicating and discussing with related enterprises, in their subordinate production and research department. For instance, the Process Equipment and Control Engineering major of our school (Northeastern Petroleum University, which locates in the city of Daqing, heilongjiang Province, China) has signed on the practice base agreement and the intent letter on joint training of talents with multiple corporations and companies, such as Daqing Oilfield Co., Ltd, Daqing Petroleum and Chemical Corporation, Daqing Refining & Chemical Company, Daqing Natural Gas Company and Construction Group and Petroleum & Petrochemical Equipment factory of Daqing

Oilfield, which applies for concentrated engineering practice;

2. Take advantage of the "Invite-in" mode and bring the small-scale equipment, devices, and machines from the enterprises into school's practicing places or a lab, which does not take up too much space and is easy for the students to practice in turns in separate segments.

Make the most of the geographic advantages of large-scale oilfields and petrochemical enterprises in Daqing and use the matters, like how the enterprises handle their technical problems and the re-learning of their technicians, as well as the enterprises' social publicity as the breakthrough to motivate the enterprises to be actively involved in cultivating the talents and strengthen their social responsibility. As a result, it helps the enterprises transform from an employing unit to a joint-training unit for talents. As for the students, they will not only gain engineering practice experience, but also get to immerse themselves in the enterprises' culture and develop their professional ethics in advance, on the other hand, school achieves their goals to make the talents cultivating plan of petrochemical and mechanical outstanding engineers and cultivate outstanding engineers, furthermore, the school manages to accomplish multi-win cooperation.

2.4. Establish the security and evaluation system of engineering practice

Engineering practice aims to help the students gain the design-implement experience, which makes it necessary to establish the system to secure and evaluate engineering practice. The system includes the establishment of the system to evaluate how

well the students do in engineering practice as well as the establishment of the professional evaluation system of outstanding project.

College students' security and evaluation system of engineering practice should focus on collecting proof of their personal performance, interpersonal skills, ability to work as a team, capability of engineering practice and constructing the products as well as how well the students grasp their professional knowledge. The evaluation of students' engineering practice consists of four stages:

1. The standardization of engineering practice results;
2. The harmony between the evaluation and the practice results as well as teaching methods;
3. Use multiple ways to collect proof of the students' practice;
4. Use the evaluation results to improve the practice methods and evaluation system. Approaches to evaluate are: evaluate by taking written or oral tests; evaluate based on the students' performance in engineering practice; review the products and assignments; evaluate according to the students' practice learning log; students' self-evaluation.

The outstanding project will be incomplete with the internal students' evaluation system solely, that's why it needs an evaluation system for the project itself, which includes the methods used to evaluate and improve the evaluation, files reviews, interviews, surveys, teachers' practice experiences memorandum and the reviews from professors of inside and outside the school. The review contents are:

1. All the recorded documents on the engineering practice of outstanding project;

2. The engineering practice experience in design-implement;
3. Working places for engineering practice;
4. The examinations of engineering practice;
5. The teachers' capability of engineering practice and its improvement;
6. The professional evaluation on engineering practice. The review system of inside-and-outside-school professors effectively guarantees the operation of outstanding project.

3. CONCLUSION

School and enterprises working together to cultivate outstanding engineers is a big and great event to spread and enhance China's mid/long-term educational reformation and development plans. The launch of the outstanding project is a graduating process where it takes constant and continuous search and correction to complete itself step-by-step. Our school takes advantage of the geographic and petrol characteristics and accordingly establishes forms and concepts of the school-enterprise cooperation, at the same time, with the principle of "going out, inviting in", we make sure the operation of outstanding project as well as the construction of major-matching teachers. In addition, the design-implement experience is separately and gradually gained in the 4-year period of school, which prepares and equips the students with certain capability to innovate and solve practical engineering problems, which contributes to benefiting all 3 parties of the students, enterprises and school; at the same time, it offers the opportunity where other schools in the opera-

tion of outstanding project can learn from our experience.

REFERENCES

- Jia, L. (2001). Research on Linkage Mechanism of School-enterprise Cooperation [J. *Science and Technology Management Research*, 2011(07), 87-90.
- Jingqiang, M. (2011). Exploration of School - enterprise Cooperation on Large - scale State - owned Enterprises Cultural Construction - An Example of the Cultural Construction of Zhejiang. Materials Industry Group Corporation [J]. *Enterprise Economy*, 2011, 11:180-183.
- Ping, W. (2008). Opinions on How China Improves the Practice Teaching Quality of Its Advanced Educational Institutes [J.:*China Adult Education*, 2008, 22:124-125.
- Shi Limin (2006). Research and Analysis on Foreign School-enterprise Cooperation Mode [J]. *Higher Agricultural Education*, 2006, 12:81-84.
- Yan, L., & Jianglin, T. (2004). The Establishment of Monitoring System for Local Institutes' Practice Teaching Quality [J. *Research in Higher Education of Engineering*, 04, 109-112.
- Ziming, F. (2013). Teaching Practice and Opinions on Process Equipment and Its Completed Set Technology [J. *Journal of Chifeng College*, 2013, 07: 214-216.

PSYCHOLOGICAL ASPECTS OF GIFTED CHILDREN

Dr.Stankovska Gordana, Professor, Faculty of Philosophy, Department of Psychology,
State University of Tetova, R. Macedonia

E-mai: gorstankovska@yahoo.com

Dr.Svetlana Pandilovska, Assistant Proffesor, Faculty of Philosophy, Department of
Pedagogy, State University of Tetova, R. Macedonia

E-mail: spandiloska@hotmail.com

Aleksandra Taneska, MA, South East European University, R. Macedonia

E-mail: spandilovska@hotmail.com

Sara Miftari Sadiku, MA, Faculty of Philosophy, Department of Psychology, State
University of Tetova, R. Macedonia

E-mail: saramiftari@live.com

Abstract: Giftedness is a multidimensional phenomenon that despite numerous studies and different approaches remains under explored. It is known that there are different views about gifted children in psychological theory and practice. Giftedness represents general intellectual ability, general creative ability, productive and creative ability, the sum of specific skills, the ability of thinking, specific area of intelligence and creativity.

Gifted child is a child who has above average skills and specific characteristics, which play an important role in the growth, development and education of these children. Researchers confirm the importance of early socialization, family and the primary teachers in the continually development of the gifted child on intellectual, social, emotional and somatic plan.

It is known that gifted child has specific characteristics and properties, such as originality, individuality, emotional stability, a high degree of intellectual capacity, independence, verbal fluency and perfectionism.

Development and manifestation of creativity in gifted children depends of their cognitive component, personality traits, motivation. Gifted child early showed a specific interest in a particular area.

This kind of child has a positive self-image, high self-esteem, self-confidence, high goals, a

sense of self-worth, greater independence, which manifests across the non-conformism and initiative.

Every child deserves the special attention of parents, school and society, especially a gifted child, which is a child with special needs about their average ability and special educational needs.

Keywords: gifted child, creativity, personality traits, psychological characteristic.

1. INTRODUCTION

All children have unique strengths and talents. However, some children have particularly advanced or well-developed skills and abilities in one or more areas. Such children may be referred to as gifted and talented.

In the gifted and talented field, attempts to define giftedness from a conceptual viewpoint have resulted in little consensus, because it is very difficult to define what giftedness is. General giftedness represents general intellectual ability, general creative ability, productive and creative ability, the sum of specific skills, the ability to use the process of thinking, specific

area of intelligence and creativity (Sattler, J.M., 2002)

L Koren (1990) defines giftedness as a kind of complex of traits, skills, motivation and creativity, which allows individuals to excel above the average score in some domain of human activity, so that product, can be recognized as a new and original contribution to the field.

However, over the time, there are some new concepts which helped to determine some general knowledge of the nature of giftedness. One of them is that, giftedness is not the result of one characteristic, but a combination of more qualities – the ability and personality.

The U.S. Department of Education and a majority of state departments of education and school systems described gifted and talented children as those who demonstrate high achievement or potential in any one of six areas: general intellectual ability, specific academic attitude, creative or productive thinking, leadership ability, visual and performing arts and psychomotor ability.

On the other hand, giftedness is not necessarily manifest only with productive or creative ability; because we can discuss it as a potential, latent basis, which will be supported by the environment, stimulating and nurturing, developing into a some form of talents (Ferbežer, J., 2005).

So it is generally accepted that a gifted child would have the potential to perform at a level that is significantly beyond that of the majority of other children of the same age, in one or more skill areas such as language, problem solving, physical or interpersonal skills. A gifted child has the potential to become for example a great writer, thinker or artist. This child not only has this potential, but is developing the skills to perform at this advanced level.

Some researchers reviewed the importance of socio-cultural factors in the development of potential talent in young people, such as higher education, better socioeconomic status, harmonious relationship between parents and their continued support children in their intellectual activities and successes (Winner, E., 2000).

2. THE TERM "GIFTED CHILD"

Within the concept of giftedness bind some terms which sometimes indicate a very clear difference. Therefore, we can discuss about the gifted child, genius, talent.

Giftedness is generally, considered to come from both nature (heredity) and nurture (the environment). It is known that gifted children need to be raised in an interactive and stimulating environment.

The role of environment begins to influence a child's development before birth and during the birth. The first four and five years of a child's life are especially important in determining his or her later development. An enriched environment offers gifted children additions stimulation experience and interaction to meet their particular needs.

Gifted child's behavior has certain characteristics that can develop into a genius creator. At the same time, these signs are numerous, occur early and often, mainly related to the presence of high intellectual ability or specific abilities (Siegel, D., 2000).

These children can be gifted in many different areas which, include:

- verbal/language (e.g. writing, speaking or reading ability),

- logical and mathematical (e.g. number and classification),
- visual and performing arts (drawing, painting, musical ability),
- body/movement/psychomotor ability (e.g. dance),
- interpersonal (e.g. communication, leadership ability),
- intrapersonal (e.g. reflexive, self-sufficient ability).

While most gifted children, have harmonious social relationships with other children and generally are adequate social maturity, some studies suggest the presence of social and emotional problems in a group of gifted with an IQ of 120 or more (Koren, L., 1990). Presumably, as the top causes of these problems are inconsistent between the major development opportunities for these children and normal school requirements, then in their specific relationships with parents and peers, especially when they are present inadequate family relationships.

Failure of gifted and their difficulties can contribute with the school curriculum, rigid requirements and concerns in education, insufficient incentives of teachers. Research indicates that because of the importance of providing gifted children with appropriate, support and stimulator from an early age, it follows that they need to be identified as early as possible if they are to reach their developmental potential (Dauber, S.L., 1990). Identifying children's giftedness can be a difficult task, partly because of the many forms giftedness are not always easy to see in early childhood (Bow, S.M. @ Owen, S.V., 2004): So now is very clear why is the great importance of early identification of gifted children, as well as the creation of conditions in the family and in school to be able to properly develop.

3. COGNITIVE, SOCIAL AND EMOTIONAL ASPECTS OF GIFTED

Number of psychological theories and research confirmed the importance of intellectual and nonintellectual factors for the development and manifestation of giftedness.

Thus, the personal traits that contribute the development of gifted, the greatest importance to attach to the specific motivation for the work, which has been shown by gifted individuals. It includes a specific commitment to the task, taking risks, taking a future perspective, anticipation and planning. This is supported by findings in practice. When teachers describe gifted individuals, they often report that they always work faster, better, successfully then before. These children show gender-specific interests in an area, which is visibly in their fascination with a problem and its solution, the high curiosity and great enthusiasm in their work. They show great energy for work with a clear need for success (Cross, T.L., Coleman, L.J. @ Stewart, R.A., 1995).

However, the giftedness depends not only of the cognitive or intellectual factors; also the social and emotional aspects of development are very important. Gifted children may have some special needs in one or more aspects of their development and many experiences with special stresses and difficulties. Some of them are:

- extra pressure from parents and teachers to be continually successful,
- increased fear of failure when they are not "successful",
- developing high demands and expectations of others,
- frustration caused by having skills at different stages of development,

- difficulties relating to other children at the same age and finding same age friends.

As a separate entity, the gifted are prone to take risks, are more sensitive to the expectations and feelings to others, very early show idealism and sense of justice, independent and competitive. They have a tendency for perfectionism, self-criticism. Their interpersonal problems related with their self-concept, self-esteem, self-acceptance, all of which leads to the development of healthy coping strategies or to those dysfunctional maladaptive (Margolis, H. @ McCabe, P. P., 2006).

The literatures on depression support a correlation between high IQ and depression among children (Baker, K. E., 1997). All empirical studies examining depression among gifted children has found that they have high levels of depression than their non-gifted peers (Mash, E. J. @ Barkley, R. A. (Eds.), 1996).

Personality theorists have suggested that management of anxiety plays a primary role in a positive adjustment. Dirkes (1993) suggested that anxiety might be more prevalent among gifted children. "Although all children are faced with anxiety, the gifted must often deal with it at younger ages than other children and with a keener sense of the possibilities open to them". She added that gifted children's anxiety may be proportional to be acceptance they receive for their unique abilities and to the coping skills they can use. Also she suggested that this anxiety may accumulate and become more manifest during adolescence.

On the other hand, some empirical studies suggest that gifted children are better adjusted than their non-gifted peers are. It is clear that giftedness protect them from maladjustment; that the gifted are capable

of greater understanding of self and others due to their cognitive capacities and come better with stress, conflicts, and developmental disharmony (Parker, W., 1996). But the other group of researchers support that gifted children are "more" at risk for adjustment problems than their non-gifted peers, because giftedness increases a child's vulnerability to adjustment difficulties (Mash, E.J. @ Barkley, R. A. (Eds.), 1996). These children are more sensitive to interpersonal conflicts and experience; greater degrees of alienation and stress than their peers.

Also giftedness is risk of psychosocial isolation, because extremely gifted children viewed themselves as more introverted, less socially accept and more inhibited. They think that their peers saw them as much less popular, less socially active and less active in leading the crowd. So the gifted children's social and emotional problems are closely related to their level of giftedness.

4. CONCLUSION

The impact of giftedness on psychological states has been examined as a dichotomous question: "Are gifted children more or less at-risk for psychological problems than their non-gifted peers?"

The research suggests that the psychological characteristic of gifted child is related to the type of giftedness, the educational fit, and the child's personal characteristics such as self-esteem, temperament and lifespan (Dole, S., 2000). The available research on anxiety, depression, and isolation in academically or intellectually gifted students results the notion that these

children are at risk for problems with adjustment.

Therefore, the early identification of gifted children with some psychological problems is very important. They need to be identified as early as possible if they are to reach their developmental potential. Identifying children's giftedness can be a difficult work; partly because of the many giftedness can take. In addition, many forms of giftedness are not always easy to see in early childhood.

The identification of gifted children with some psychological problems has received increasing attention in recent years. These children are based on clinical practice and professional treatment. In addition, for the gifted and talented child is very important to recognize his/her educational, social and emotional needs by their teachers who will do some things for them, like this:

- being placed with other children in the classroom
- being able to work, in one or more subject areas, at a level which is more advanced than that of other children their age
- extracurricular activities and competitions
- acceleration, enrichment and extension in their education
- report more positive feelings regarding themselves and others and perceive themselves to be cognitively more competent in school tasks
- prefer their intellectual peers to their chronological-age peers.

So teachers and parents of gifted and talented children need to respond consistently to their children's individual needs and interests to help them to develop skills needed to relate to friends who are not to be gifted and talented or to talk with child that being gifted is not an excuse for bad

behavior and risk for social and emotional problems.

REFERENCES

- Baker, K. E. (1997). Depression and suicidal ideation among children. *Gifted Child Quarterly*, 39 (4), 218-223.
- Bow, S. M. @ Owen, S.V. (2004). To be gifted and learning disabled. Mansfield, CT: *Creative learning Press*.
- Cross, T. L., Coleman, L.J. @ Stewart, R. A. (1995). Psychosocial diversity around gifted adolescents: An exploratory study of two groups. *Exceptional Children*, 17(3), 181-185.
- Dauber, S. L. (1990). Aspects of personality and peer relations of extremely talented adolescents. *Professional School Journal*, 34 (8), 10-14.
- Dirkes, M. A. (1993). Anxiety in the gifted: Pluses and minuses. *Roeper Review*, 5, 68-79.
- Dole, S. (2000). The implications and resilience literature for gifted students. *Journal of Learning Disabilities*, 23 (4), 91-95.
- Ferbežer, J. (2005). Celovitost nadarenosti. Nova Gorica: *Educa*.
- Kay, K. (2000). Uniquely gifted: Identifying and meeting the needs of gifted students. Mansfield, CT: *Creative learning Press*.
- Koren, L. (1990). Pogled na pojavu nadarenosti i uloga nadarenih pojedinaca u savremenom svetu. Novi Sad, *SACEN*.
- Margolis, H. @ McCabe, P. P. (2006). Improving self-efficacy and motivation: What to do, what to say. *Intervention in School and Clinic*, 41 (4), 218-227.
- Mash, E.J. @ Barkley, R. A. (Eds.).(1996). Child psychopathology. New York: *Guilford Press*.
- Parker, W. (1996). Psychological adjustment in gifted students. *Gifted Child Quarterly*, 40 (4), 194-199.
- Sattler, J.M. (2002). *Assessment of children*. San Diego.

Siegel, D. (2000). Parenting achievement oriented children. *Parenting for High Educational*, 29 (30), 6-17.

United States Office of Education (1977). Assistance to states for education for handicapped children: Procedures for evaluating specific learning disabilities. *Federal Register*, 42, 2082-2085.

Winner, E. (2000). Giftedness: Current theory and research. *Current Directions in Psychological Science*, 9, 153-156.

PROBLEMS DISCONTINUITY ON THE FIRST LEVEL OF THE SCHOOL SYSTEM

MSc Sonja Veličković, College of professional studies educators, Aleksinac, Serbia
E-mail: sonja_velickovic@hotmail.com

Abstract: In this paper, the author points out the problems that arise as a consequence of the discontinuity between kindergarten and school discusses, some aspects of discontinuity with which the children often face the transition from one level of education to another and provide guidelines to overcome them.

Keywords: discontinuity, kindergarten, school, social relations.

1. INTRODUCTION

A study of the problems that arise as a consequence of the discontinuity in the educational system of, is not possible without the knowledge of the most common causes that lead to it, but also, and knowledge of the area, or the area in which it is usually expressed and manifested. However, in order to better understand the problem we are discussing some attention, first, we must devote terminological origins and etymological meaning of the word discontinuity, ie. first necessary to determine the notion of discontinuity in the educational system.

Word of discontinuity comes from the Latin language and the words *dis* – *continuitas*, which means termination intermittency. (Vujaklija, 2003: 238). In accordance with the above terminology origin and etymological meaning of the word discontinuity is determined by the notion of discontinuity in the educational system, the essence of which lies in the disconnect between certain degree of education. Any change in the environment leads to a sense of discontinuity, ie. break with familiar surroundings, people, children, treatment, or certain habits that were formed as a result of the development of appropriate skills at a certain level. This feeling also occurs during the transition from one level of education to another, and

he has a very important role in the development of the young child.

2. THE NEED AND IMPORTANCE OF ACHIEVING CONTINUITY BETWEEN KINDERGARTEN AND SCHOOL

Starting school is one of the crucial events in the life of a child. The transition from one level of education to the next placed huge demands on the child, such as adapting to new conditions and work methods which are not at all similar to those in kindergarten. For a child it's a new life situation that involves a change in the physical environment, meet with adult strangers, to recognize the authority of the new teachers, meeting with a number of unfamiliar peers, adapting new collective acceptance of new roles and responsibilities. In this situation, the child must be formed to change behaviors in order to comply with the new conditions of life which needs to be adjusted, which is not always easy. Extreme discontinuity have caused adaptation problems of children at school, anxiety and stress, which has negative effects on learning and behavior in children, especially at the beginning of their education. Practical examples show that the transition causes anxiety and childhood stress or confusion and boredom. (Woodhead to Kamenov, 1982: 55-56). Therefore, schools should take into account what the child has achieved up to this point in its development, and to her to be the basis for further work. Educational work with children in preschool and elementary school must be continuous, ie there must be a connection between these two levels, because

continuity leads to the achievement of effective educational results in the further education of children.

As much as that in pedagogical science points to the need and importance of achieving continuity between kindergarten and school, it was confirmed that he was in pedagogical practice does not realize fully how states Arsic,"even though it is in education, psychology, and other sciences that deal with the problems of child development indicates the importance and necessity of the continuation of the educational system in practice there are problems indicating that it does not achieve a satisfactory manner" (Arsic, Z. 2012:33).

The issue of continuity/ discontinuity in education between kindergarten and school with us dealt with, (Marjanovic, A. 1977; Kamenov, 2006; Kopas, Vukašinović, 2010; Stanisavljević - Petrović, Z. 2011), indicating that the discontinuity complicates the transition from pre-school child school to school, and from lower to higher levels of education. If this transition is inadequate"... Children who have academic and social difficulties in the early school years and probably will continue to have problems during their school careers, and throughout their adult life"(Docke & Perry, 2007).

In order to overcome the existing discontinuities and adaptive problems of children in the transition to school is recommended to work in the first grade must be similar to the organization of activities in pre-schools from which the children come. This view is supported by research conducted in Greece during the period since 1992. so in 1993. Year, which had among other things, aim to determine whether it is possible to reduce the existing discontinuity between pre-school and school upbringing and education, and to alleviate the transition of children from preschool to school (Kakavulis,1998:78). A significant degree of agreement among the attitudes of teachers, teachers and parents, in terms of requirements to work

in the first grade must be similar to the organization of activities in pre-schools from which they come.

The transition from one institution to another should run smoothly and seamlessly, in order to achieve this it is essential that the whole educational work as flexibly organized in both institutions. It involves the gradual introduction of new applications, content and organizational forms in the school and especially the characteristics of teaching in schools, especially at the beginning, should not be substantially different from what the child is accustomed to in kindergarten. The teacher must have an understanding of the habits that children are brought from the nursery, and should be entered into the spirit of the game and continue as both physical and social environment of the kindergarten and elementary school should not be greatly different.

In the past few years, particularly the increased interest of researchers on this issue, but from the perspective of the child, and there are few studies that deal with the study of the attitudes of children on the transition from preschool to elementary school. (Levine, 2005; Colic & Nišević, 2011).

Literature review and analysis of the attitudes of children revealed that first graders showed numerous complaints to school work and learning. For illustration, we will present a statement from a eight year old:"The worst part of school is constantly sitting. It kills. My brain hurts when I have to sit, listen, for hours. I can sit, but often want to jump up and rush past the hallways"(Levine, 2005: 104).

The paper"Going to school - from the viewpoint of a child,"the author (Colic & Nišević, 2011: 450-456), are the results of the way children see and experience the transition from kindergarten to school and what they expect from it. The results show that children are burdened by unrealistic expectations of adults, and the authors argue for a change in the usual approach to this problem, dominated by emphasizing

the preparation of the child and his adaptation of institutions and programs, rather than attempting to go to school as painless as possible for all participants and primarily for children.

On the basis of research and thinking about the experience of discontinuity during the transition from kindergarten to school, can be considered some aspects of discontinuity with which the children often face the transition from one level of education to another. We believe that they occur most often in the following areas: a discontinuity in the organization of space and time, the social environment, the discontinuity in the programming sense....

3. DISCONTINUITY IN THE ORGANIZATION OF SPACE AND TIME

The organization of space and time is an important aspect of the life and work both in pre-school, and at school. Arrangement of space, physical environment, and time organizing activities significantly impact the quality of life for children and adults. The organization of space and time is determined by the general atmosphere in which to place educational work of educational institutions. The kindergarten orientation on the development of socio - emotional aspects of personality, the fostering creativity, encouraging self-expression activities through games and activities for the children's choice, at odds with the demands imposed by the organization and its directionality in school subjects and forcing cognitive development.

Spatial organization of kindergarten when it comes to interior design when it comes to orderliness exterior, is very different from the spatial organization of the school as a physical learning environment. Flexible spatiotemporal organization of the educational process in the nursery decorated by individual initiative,

respect for diversity,"situational approach,"open and less ritualized planning, various flexible forms and methods of educational work versus rigid spatio-temporal organization and implementation of the system of teaching activities according to strict guidelines coffee at school. Tells us about the current discontinuity in our educational system.

Changing the physical environment is one of the most obvious changes that occur during the transition from preschool to elementary school. Feelings of insecurity and maladjustment child who starts school, contributing to large differences between objects, interiors and exteriors preschool that your child is accustomed, and schools. Coming from kindergarten as well-known object, the child is faced with changes that require learning and adapting the physical specifics of the institution. The child is in kindergarten used to the layout and organization of the building, which by all standards adapted for preschool children, taking into account not only pedagogical and psychological characteristics of children, but also aesthetic and health and hygiene criteria. The building of the institution is its attractive arrangement for children. Well-structured environment in kindergarten through materials, accessories and toys for the work creates an atmosphere conducive to the overall growth and development of children.

Many professionals who deal with issues of preschool education Miljak (2009); Slunjski (2006); Petrovic - Sočo (2007), emphasize the importance of physical and material environment of educational institutions and the connection between learning environment with quality teaching. The issue of quality of physical and material environments kindergarten necessarily associated with reviewing the educational culture of educational institutions. The room is a mirror of culture, that is evidence of what adults think about children, their learning about what they can and what is the role of the

adult in their learning, development and education (Petrović - Sočo 2007).

According to Reggio pedagogy purposefulness space is of great importance, is the best indicator of the thinking and lifestyles of those who stay. The author Rinaldi (Rinaldi, 1998), which has made a great contribution to the Reggio approach, states that the environment should be designed to allow the child a permanent dialogue with other children, teachers and the environment and that his environment is a challenge for learning). Another author from Reggio pedagogy (Taguchi, H. L. 2010), emphasizes the importance of the material equipment of pedagogic environment for continuous learning and development of all participants in the educational- educationprocess.

Summarizing these authors, it is clear mutuallyaction theory and practice. However the gap between theory and practice suggests that not enough emphasized the importance of the learning environment under the age of school children which clearly shows the existing spatial organization and physical discontinuity between kindergarten and primary school.

In contrast to all that was known at the kindergarten, coming to school brings big changes in the perception of objects. School buildings are mostly large, with long corridors and rows of classrooms, which are quite uniform and unimaginative regulated, reduced to a bench, chair and table where the schedule completely different than working in a kindergarten room.

Given the uniformity of the classroom, the child is usually forced to stay with the other children and to deal with the same (orchestrated) activities that apply to everyone equally. It is normal that in such a drab offer children often have a „feeling of anxiety, inhibitions, maladjustment, abandonment.”(Stanisavljević - Petrović, 2011:127).

If all this is added the noise and clutter of older children in long hallways

during the holidays, for children first grade frightening, with the result that they are unsafe, scared.

Its uniformity schools not only expressed in the physical and environmental context, but also in the organization of school time, which leads to the fact that children experience a discontinuity in this regard. The organization of life and work in the school, from the aspect of the time, is completely different from the temporal organization of kindergarten.

According *Basics of preschool programs* in Serbia, working with children should be conducted continuously, without sharp boundaries in teaching and activities, taking into account that no activity is not neglected. So insist on the possibilities of absolute agreement, without strictly fixed timetable for the organization of activities. There is no strict time limit, because it is based on the fact that children in many activities that they were interested and motivated volunteer and participate as much as they need to meet their primary needs and interests. The flexible schedule of different kinds and types of activity, characteristic of work in kindergartens replaced largely orchestrated activities in school hours, with a planned and systematic organization leaves little opportunity for adjustmentthe needs and interests of children.

The system of education and the requirements placed teacher, in its implementation, often do not offer the possibility of a flexible approach to children in terms of spatial and temporal organization. Duration of classes is strictly defined, as well as daily and weekly schedules.

The kindergarten orientation on the development of socio - emotional aspects of personality, the fostering creativity, encouraging self - expression activities through games and activities for the children's choice, it is different from the requirements imposed by the organization and its directionality in school subjects and forcing cognitive development.

Although discontinuity in physical terms does not significantly affect the child's progress, and therefore it is not too extreme, though the regular cooperation of both institutions and especially visiting children nursery school, the negative impact that new space brings can be mitigated (Edit.A., 2004: 27).

Different environments leads to difficulties in the adaptation of the children, and the emotional development and socialization of students there are problems in terms of adjustment of children in the transition from preschool to elementary school. The transition from one institution to another should be made easier by preparing children, visit schools, learning about life and work in the school acquisition in use, and this is achieved by the cooperation of all employees in both institutions.

4. DISCONTINUITY IN SOCIAL RELATIONSHIPS

Given the importance of social experiences for growth and development of the child is of particular importance studying the continuity of social relationships in the family, pre-school and primary school as well as areas in which a child enters into an asymmetric interaction with adults (teachers, teachers and parents) and symmetric interaction with peers. However, during the transition of the child from preschool to school there has been a discontinuity in the social environment. Changes occur to the quality of relationships between children, as well as different; adult - child relationship.

Transition from kindergarten to school children primarily through changes of identity and as a child of preschool institution in which it had a certain "reputation" and the position of students in school, which means they are expected to behave in a certain way, to understand the rules of the classroom, to

learn the language of the classroom and that "reading teacher. Arrival at the school the child becomes a member of a new collective, which is only a small part. In pre-school in the familiar social environment it is the youngest and is forced to refer to older children.

The school social environment is much more complex, there is a growing number of children in relation to the number of children in kindergarten, and in addition there is also more competition. At school there is more interaction with adults than before, but have less autonomy, so that they must discipline their behavior and movement. Arrival at the school the child must accept new forms of behavior, to refrain from satisfying the desires of many, that for a long time to be still and to adapt to a situation where the individual is in a group of peers. From common games, meetings, collaboration that exist in the activities, and a close relationship with "his aunt" come to a formal environment where they do not have the option of dealing with the activities of their choice. Children sit as they turned their backs to each other, there is no possibility to communicate with each other during class time, cooperation among children is quite limited, reduced to a period of rest time.

Perception of the teacher as a person who dominates all activities affecting the quality of the emotional relationship to him which also means a change in the behavior of Champions, in relation to the quality of the relationship with the kindergarten teacher in kindergarten. The relationship of partnership and respect is gradually turning into a relationship "awe". At school, all the activities conducted by the teacher, as the dominant people. Thus, the quality of the adult - child relationship changes from an adult who organizes, facilitates and promotes engagement in different activities, to the adult who dominates in every activity. An interesting parallel between the current relationships in school and relationships in kindergarten Glaser says in the book "Schools without

coercion.”The author makes a distinction between the traditional, hierarchical relationships, and relationships that are based on the principles of partnership. In regard to this, it is stated that the partnership”head of water, relies on cooperation, creates trust, showing how something works, motivate, correct mistakes, work turns into something interesting. In contrast, in the hierarchy of government relations stiffness boss who drives to work, expressing dissatisfaction, fixes and work in an effort converts” (Glasser, 2005:11).

Therefore, the children are more comfortable staying in the nursery than in school, just because of the fact that the atmosphere is more relaxed in kindergarten. relations between teachers and children are more natural as children more before a less formal, as opposed to the school, where the quality of the relationship changes and becomes a little colder.

Staying in kindergarten children have acquired a certain autonomy, but nevertheless can count on the help of kindergarten teachers or other adults in the kindergarten. At school, the child expects greater independence in daily school activities in which the child and not used. Unlike preschool, where activities are voluntarily accepted by the children, and contact with adults, mainly depends on the type of activities that children engaged in school, all activities are guided by the teacher, as the dominant person (Edit. A., 2004: 27). This causes the changes the quality of the relationship between child – teacher. Perceptions of the adult as someone who dominates all activities affecting the quality of the emotional relationship to it, which is a big change compared to the quality of the relationship that the child had a kindergarten teacher in preschool. In addition to changes in the quality of the relationship between a child – teacher, starting school there is a change in the quality of relationships among the children, because unlike the preschool

where children play together, socialize and cooperate in activities in school with their backs facing each other, so that is unable to communicate in class, and cooperation is significantly limited, but is born of jealousy, desire for domination in getting more.

Case Study (Brostrom, 2003) has shown that many children still have difficulties in learning and social interaction in school although teachers and elementary school teachers during latter-conducted the so-called transitional activities, as well as mutual visits before children start school. This study describes slightly preschool children who are independent, curious and establish good communication and social interaction with peers. However, the transition from preschool to school back in the beginning of the change. They were positive, they were less active and exceptionally uncertain. Although these children tested demonstrated the required level of readiness for school, they felt”unfit”for the school. This has hampered their sense theircommitment to active learning in a new environment and the (temporary) loss of competence can be put in low self-esteem and insecurity in themselves and their new environment.

It may be noted that the discontinuity in the social environment can be mitigated by careful alignment of attitudes of employees at both institutions in relation to important issues concerning the independence of children and social relations, especially in changing the existing traditional school practice. Based on rigid and hierarchical relationship between student – teacher. Action research educational practice it is possible to change not only educational practices, but also the people involved in the process. According to the author Miljak...”direct participation in educational research and educational practice is gradually changing its approach to the child as it deepens its understanding of the child. Difficult that a researcher educators (without coercion or control) on

its own initiative changing educational practices, living conditions and learning at the institution". (Miljak, 2007: 229). Consequently, teachers as responsible in early school steps must change the existing practice, the conditions of living and learning in the school (in the early grades), and assist in the timely and adequate access to the child who needs to go to school.

5. DISCONTINUITY IN THE PROGRAM DETERMINATION

In practical educational work is one of the most common causes of discontinuity that children face when moving from kindergarten to elementary school represents just a discontinuity in its programming. In this sense it is possible to speak about the discontinuity at the level of the program - a document, and the level of real programs within schools and preschool. Terminological definition programs such document in educational institutions, kindergartens, and schools are different, which may indicate the existence of other differences. In fact, while in pre-school educational activities based on a document called the basics of educational work in schools are implemented program of primary education, the term curriculum, and the school program. Already in this first assertion clearly see the different orientations of the program goals of the institution and therefore the differences in the approach to children's developmental aspects. And in terms of the very basics of the program and come to a difference that is not only the terminology, but the essential nature. The essential difference concepts, program, and, basic programs, parole refers to the degree of sophistication of the program. School programs are structured, and elaborate, each class has its own program that is taught throughout the year and even during the first quarter of the year has its own theme, its third - quarter...

In contrast to the basics of the curriculum is characterized by flexibility, creativity and spontaneity, and the greater ability of teachers in the process of working with children.

Children in pre-school have the opportunity to comply with the *Basic program*, diverse range of activities available to them, choose those that are in line with their interests. It may be noted that the program of the kindergarten program is child that corresponds to characteristics of his thought and emotional interests. The work is individualized measure of the child, his ability and individual needs, the dominant activities of free choice, directed and combined activities in any residential area or outdoors. Because the kindergarten program flexible and methods depart from child interest and certain spontaneity.

It is believed that children who lived in such an environment, it can be hard to get used to the obligations that await them in school, where far fewer opportunities for free choice activities, because in school they are required to teaching classes, whose content is regulated and not subject to changes to children's interests and needs. Therefore, children who start school arise various problems: it is difficult to get their attention, it's hard for them to do their school work and they forget what they have just heard, not Focus on long enough, soon they get bored activities in class, squirm is, make careless mistakes, constantly repeating the same mistakes (Kopas –Vukašinović, E 2006:178-179). The above problems that children face when the preschool their educational activities teaching a departure in the first grade of elementary school, show that there is no programmatic connection between these two levels of education, which affects the occurrence of discontinuities in the programs. While preschool programs have a (playful approach to learning) playful approach to learning according to the developmental abilities of children, traditional school

programs are strictly structured and directed by the teacher. Analysis of the available literature where more closely analyzed the problems related to the discontinuity between pre-school and primary level of education, points to the need for their program to connect. In this sense, stands out preparatory functions institutional preschool education, which is also an essential prerequisite for overcoming the discontinuities between preschool and primary level of education. The proper preparation of children for school implies continuity in the implementation of program tasks for the oldest children of preschool age and first grade students. Content and methods of preparation are determined by starting with, on the one hand, the development needs and capabilities of the child, on the other hand, the system requires that the training set in front of the child (Kamenov, E., 2002: 211).

Based on the previously imposed observation, we can conclude that the content of the preschool education must be on what 's next for the elementary school, which, in turn, should accept and amplify the effects of educational work at the preschool level. This is primarily emphasizes the application for vertical continuity, which implies a level of the education system with the other, whose meaning lies in the preparation and facilitation of the transition from a lower to a higher level in line with the evolving capacities of children.

6. CONCLUSION

To kindergarten and school as close as possible, above all there must be continuity in the entire education system, especially taking into account the age characteristics of children with whom you work, and accordingly build a program that will build on previously learned and serve as preparing for the next step. The results

achieved in pre-school children must be the basis for the work of the elementary school. So, the connection must be two-way. That means the program requires synchronization, search points of contact in the program, and the harmonization of working methods, learning environment and the development of which requires the cooperation of teachers, educators, principals and associates of these institutions.

As of the nursery should not serve solely preparation for school, so that a school should have at least the first year, the organization closer to its nursery and experience that the child was in it. This requires reform of the entire system of educational institutions, awareness of the need for continuity between levels of the system, and above all requires an educated and competent professionals who know the problems faced by children who practice know how different institutions work and who are willing to reform present meticulously and quality, based on the facts.

REFERENCES

- Arsić. Z. (2012). Basic assumptions and conditions to overcome discontinuities between preschool and primary level of education, *Proceedings of the Seventh Symposium "Educator in the 21st century," Our creation*, College of Professional Studies educators Aleksinac, p. 20-32
- Brostrom, S. (2003). Problems and barriers in children`s learning when they transit from kindergarten to kindergarten class in school. *European Early Childhood Research Journal, Research Monograph Series 1*
- Colić, V. Nišević, S. (2011). Admission to the school - from the viewpoint of a child, *Pedagogy 2*, vol 66, no. 3, p. 450-456.
- Glasser, W. (2005). *High-quality schools - schools without coercion*, Zagreb: Educa
- Vujaklija, M. (2003). Glossary of foreign words and phrases. Belgrade: *Prosveta*
- Docke, S., & Perry, B. (2007). Transitions to School. Perceptions, expectations, experiences. Sydney: *UNSW Press*.

- Edit, A. (2003). The continuity between the levels of the education system, *Norma*, Vol 9, p. 55-64.
- Edit, A. (2004). Overcome the discontinuity of pre-school and primary education, *Norma*, vol. 10. No. 1-2, p. 23-36.
- Kakavulis, A. (1998). Continuity in education in early childhood: the transition from preschool to school. *Teaching and Education*, Vol. 47, No. 1, p. 78-90.
- Kamenov, E. (1997). *Methods and methodological instructions for Model B Tractor preschool education for children from three to seven years*, Novi Sad - Belgrade Department of Pedagogy, Faculty of Philosophy in Novi Sad and community colleges for the education of teachers of the Republic of Serbia.
- Kamenov, E. (1982). Experimental programs for educating early, *Institute for the handbook and teaching resources* Belgrade.
- Kamenov, E. (2002). *Preschool Pedagogy* (Book Two), and the Department of texts for teaching aid, Belgrade.
- Kamenov, E. (2006). Educational work in the preparatory group of kindergarten theory and practice, *Dragon*, Novi Sad.
- Kopas-Vukašinović, E. (2006). The role of play in the development of preschool and early school age, *Journal of the Institute for Educational Research*, No.1, p. 174-189.
- Kopas – Vukašinović, E. (2010). The educational work in preschool and school - achievement of continuity in the selection and implementation of tasks, a *New school*, No.VII, p. 176-184, Faculty of Education, Bjelinja
- Kopas – Vukašinović, E. (2011). The continuation of the system of institutional pre-school and primary education, *Pedagogy*, No.2, p. 272 – 281.
- Levine, M. (2005). *Every child is smart in their own way*, Belgrade, Power of books.
- Miljak, A. (2007). Theoretical Framework of Co-construction of Curriculum of Early.
- Miljak, A. (2009). *Children living in vtrću*, SM Circulation doo, Zagreb.
- Marjanovic, A. (1977). Linking preschool and elementary education, *preschool child*, No.1, 3-15.
- Petrović - Sočo B. (2007). "The context of the institution of early education - holistic approach." Zagreb: *Small Professor*.
- Rinaldi, C. (1998). Projected Curriculum Constructed Through Documentation – Progettazione. In: Edwards, C., Gandini, L., Forman, G. (eds), *The Hundred Languages of Children*. London: *Ableh Pub. Connedicut*, p. 99-113.
- Stanisavljević - Petrović, Z. (2011). Discontinuity in education between kindergarten and school, Faculty of Philosophy, Niš.
- Slunjski, E. (2006). Creation of prekindergarten curriculum in a learning organization, Little Professor, Zagreb, Teacher Training College in Čakovcu.
- Taguchi, H. L. (2010). *Going Beyond the Theory, Practice Divide in Early Childhood Education - Introducing an interactive pedagogy*. London and New York: *Routledge*.

COMMUNICATIVE EFFECT ACHIEVED THROUGH SPEECH ACTS OF MANIPULATION

Dr. Grischechko Oksana, Faculty of Linguistics of the South Federal University,
Russia, Rostov-on-Don
E-mail: os-sfedu@yandex.ru

Abstract: Linguistic manipulation is a relatively new trend studies in the framework of pragmatics and generally defined as any verbal interaction viewed as goal-oriented and goal-preconditioned phenomenon. It is verbal communication described from the perspective of one of the speakers when he sees himself as a subject of manipulation, while his interlocutor plays the role of an object. Speech acts of manipulation expressed through a variety of utterances having a number of specific aims are used to directly or indirectly convey certain meanings. The article suggest a comprehensive analysis of linguistic means used to construct various types of manipulating and motivating speech acts aimed at conveying different tinges of meaning.

Keywords: theory of speech acts, speech acts of manipulation, communicative effect, pragmatics, illocutionary aim.

Anthropologic approach towards analysis of language phenomena predetermines research of speaker meaning and a view of human communication focusing upon «intention and deliberation» (Thomas, 1995: 15). The center of speech field is a human (subject, speaker) with the whole set of his psychological characteristics, speech competence and background knowledge. Orientation towards subject of speech marked the transition from analysis of «stable» word meaning to examination of variable content of an expression.

The speaker fulfils his speech task hoping to achieve a definite effect that would lead to understanding and corresponding actions on the part of the interlocutor (Vinokur, 1989: 19).

Modern scientists base their research on the theoretical supposition that human speech is in its nature operative.

Operative power of a word was subjected to comprehensive analysis in the framework of many sciences. Today, in the modern scientific field, a new integral sci-

ence is being formed that can be called theory of speech manipulation.

Theory of speech manipulation is a science of effective communication. Like any theory, it has its history. In Ancient Greece and Rome rhetoric was teaching public performance, dispute tactics and methods of winning an argument. Ancient rhetoric was based mostly upon logic, rules of logical thinking and persuasion.

In the middle ages rhetoric was practically gone as a science and resurrected in the XX century on a new, psychological basis – the object of interest shifted from logical to psychological, emotional means of persuasion.

The XX century saw the need of introducing integrated approach towards speech manipulation for certain reasons (Korolev, 1992: 3-4):

- *social and political reasons:* development of democracy and ideas of personal freedom and human equality preconditioned the need of a science that would show how to convince people with equal or different social status;

- *psychological reasons:* the end of the XIX century is associated with the new outlook on a human being. Earlier a human was considered primitive and lazy, his adequate operation in the society was associated with the use of the carrot and stick approach. However, today development of culture, literature and art coupled with the appearance of scientific psychology, has provided grounds for a different concept of a human. A human has turned out to be a complex, psychologically versatile identity demanding differentiated approach;

- *communicative reasons:* these reasons are connected with the development of human communication itself. Our time is characterized by expansion of communi-

cation spheres and of the number of situations that demand interaction and persuasion. The notion of oral speech itself broadens out, it starts to fulfill more varied functions, plays a more important role in communication process, which explains the need to look for special ways of communicative interaction, pay more attention to colloquial speech;

- *economic reasons*: competition and production slumps generated the demand for advertology, «imposition» of goods, «winning over» customers. Salesmen were the first to realize the critical need of a science of conviction.

The existence of these objective reasons provides grounds for research in the framework of a whole complex of sciences. Operational force of speech is extensively covered in modern linguistic literature and is studied in a number of allied sciences, in particular, in pragmatic linguistics, psychology, psycholinguistics, sociolinguistics, theory of mass communication, rhetoric.

From the point of view of such upcoming scientific areas as pragmatic linguistics and psycholinguistics, language, being a means of communication, serves not only the purpose of conveying information, but also effects interlocutors thus regulating their social, interpersonal, mental state and behavior.

Linguistic manipulation studied by these disciplines is defined as manipulation of individual and / or collective conscience and behavior realized through various linguistic means, in other words – with the help of utterances in natural language. Sometimes linguistic manipulation is also associated with the use of messages built by means of non-verbal semiotic systems that include paralinguistic means (tempo, timbre, voice volume, logical stress), kinetic means (gestures, mimic, posture), etc. (Zheltuhina, 2004: 12).

For a long time scientists believed that the function of speech consisted in conveying information about the world. Modern research works view the words as

means of influencing other people. According to American psycholinguist D. Slobin, «it is rather dangerous to forget that languages can effectively influence people's beliefs and actions» (Slobin, 1976: 115). Thus, sending a message is never the ultimate objective of communication, this transfer is only a means of achieving other aims directed towards control of interlocutor's activity (Tarasov, 1990: 9-10).

Linguistic manipulation in a broad sense is any verbal interaction viewed as goal-oriented and goal-preconditioned phenomenon, it is verbal communication described from the perspective of one of the speakers when he sees himself as a subject of manipulation, while his interlocutor plays the role of an object (Tarasov, 1990: 5). Being a subject of communication means to regulate your interlocutor's activity, as using speech we induce another person to start, change or finish certain activity or create his readiness towards commitment of a particular action when such necessity arises.

What is meant here is inducement towards proximal verbal or non-verbal reactive action coupled with mediated manipulation aimed at formation of certain emotions, valuations, orientations on the part of the listener that would correspond to the intention of the speaker (Sytnik, Krivulya, 1989: 90). Subsequently these orientations are supposed to lead to organization of such behavior of the listener that the speaker counts for (Matveeva, 1981: 6). Manipulating a person, we aspire to engineer his behavior according to our needs, «to find weak spots in his system of activity and affect them» (Leontyev, 1981: 273).

Subject-object interaction can be *direct* (the subject openly asserts his claims and demands to the object of manipulation), and *indirect* (directed not towards the object, but towards his environment (Zheltuhina, 2004: 13). Direct method of linguistic manipulation includes the forms that have a definite meaning in the lan-

guage system that directly expresses corresponding illocution, i.e. communicative aim of the speaker. Thus, for instance, forms of the imperative mood are traditionally associated with the meaning of inducement, declarative and interrogative utterances are conventionally connected with illocution forces of the message and information request. Indirect method of expressing communicative intention consists in the usage of linguistic forms to express illocution forces not connected with their direct linguistic meaning. Indirect forms do not express the speaker's intentions in the open.

In order to construct theory of linguistic manipulation, it is critically important to differentiate the notions of manipulative and actualizing influence, on the one part, and productive and non-productive influence, on the other part. Such differentiation of methods of influence in the framework of communication, takes form of hierarchy reflecting different levels of communicative competence in the use of the language: the primary stage of the typology is represented by non-productive manipulation, the top stage is speech actualization.

Many features of communicative utterances are associated with the aims of creation and perception of speech exerting substantial influence on their form. The stated aims as characterized by hierarchical pattern: among them there are main, general aims and particular, dependent aims.

L.A. Kiseleva highlights the following aims of speech interaction:

Communicative aims that include: 1) informative aims; 2) pragmatic aims: a) motivational; b) emotional-evaluative; c) emotional-regulating; d) aesthetic-regulating; e) contacting.

Non-communicative aims (aims of self-expression) that include: 1) the aim of intellectual expression self; 2) the aim of emotional expression of self; 3) the aim of emotional-evaluative expression of self (Kiseleva, 1978: 149).

The speaker's intention or communicative aim engineers a certain type of utterance. This article sees into the utterances expressing the speaker's wish to impel the interlocutor to do something).

As is known, accommodates direct speech acts of manipulation. They are usually expressed using the following means.

1) Utterances containing lexical verb in the imperative form:

Stop talking. Tell him to go away (Ivanova, 1981: 69).

2) Utterances containing link verb «be» in the imperative form and participle I or II.

Be always searching for new sensations! Be seated! (Veihman, 2000: 76).

3) Utterances containing the verb «get» in the imperative form and participle I:

Get together and get talking! (Haimovich, 1967: 155).

4) Utterances containing the verb «let» and a pronoun in the 1st person plural, indicating inducement towards cooperative action:

Let us come in. Let us break it off here and now.

The verb «let» can also collocate with a pronoun with the 3rd person singular or plural and the infinitive:

Let them come in (Akimova, 1992:189).

Together with direct speech acts of manipulation, non-direct speech acts of manipulation are also common in the framework of speech interaction. These are utterances non-imperative in the form, but serving always to express the meaning of inducement. This meaning of inducement is associated with these forms in the language system.

Analysis of theoretical literature and factual material allows to allocate the following types of conventional indirect speech acts (hereinafter referred to as CISA) of manipulation:

1) CISA represented by utterances with modal verbs expressing permission, prohibition, must, necessity, advise, order,

warning, command, request (the latest is often marked by *please, kindly*):

'You don't have to, honey. You can sleep on mine' (Briarpatch, 89).

'Will you, mademoiselle be precise, please' (ABC, 72);

2) CISA in the form of the speech act of interrogation and represented by utterances with modal verbs *can/could, will/would*. Such CISA express request, requests with *could* and *would* being more polite than the requests with *can* and *will*:

'Could you take me to the suite, please?' (Briarpatch, 134).

'Would you be so kind to call back?' (Too True, 76);

3) CISA in the form of the speech act of interrogation-statement and represented by utterances expressing request:

'You are going to tell me now, right?' (Too True, 190).

4) CISA in the form of the speech act of interrogation represented by rhetoric question. Such CISA express prohibition:

'How dare you? How dare you to talk to me like that?' (Too True, 171);

5) CISA in the form of the speech act of request expressed by general question with modal verb *would* and special questions in the negative form with the word «why». These CISA have inducement or inducement-offer as their illocutionary aim:

'Why not wait till the receipt of the next letter?' (ABC, 87);

6) CISA in the form of the speech act of interrogation expressed by special question with the word «why» having the meaning of advice and used in order to induce the addressee to perform the correct action:

'Why go to the library when you can go to the source?' (Too True, 225).

7) CISA represented by indirect questions beginning with the phrase «I wonder»:

'I wonder if you would be kind enough to give me a lift' (Briarpatch, 57);

8) CISA expressed by declarative sentences with conditional clauses indicat-

ing positive and negative consequences of action completion (in the latest case a speech act conveys a meaning of warning):

'If you come near me again, I'll kill you' (Briarpatch, 126);

9) CISA in the form of the speech act of question represented by utterances beginning with the words *what about/how about* and conveying the meaning of discreet inducement:

'How about we have dinner together to celebrate?' (Storm, 117);

10) CISA in the form of the speech act of question expressed by interrogative utterances without word order inversion. Such CISA may have illocutionary aim of request:

'Then you 'll help me?' (Briarpatch, 109).

11) CISA represented by utterances containing performative verbs, i.e. verbs that do not describe action, but are an action themselves, and this action is carried out through realization of this utterance: *declare, promise, advise* (Austin, 1986: 39):

'I beg you to be careful. He is a murderer, remember that' (ABC, 138);

12) CISA of inducement represented by utterances with verbs in the form of the indicative mood conveying the meaning of instruction. Such utterances often include the construction *be going to*:

'You are going to do what I ask' (ABC, 41);

13) CISA represented by utterances containing the verbs in the subjunctive mood. Illocutionary aim of such CISA is formal request (sometimes with the tinge of pleading), inducement with promise, advise:

'If we stayed here long enough I'd show you a lot of interesting things' (Too True, 292).

This type of CISA can be represented by speech acts expressed by utterances with lexical content conveying the meaning of need, desirability, probability of committing an action:

'It is important that you should believe me' (ABC, 39).

In this group also belong subordinate clauses following the main clauses, like *It is time...*, *It is high time*:

'It is high time you answered Yes or No, mademoiselle' (ABC, 157);

14) CISA in the form of speech acts represented by utterances with set expressions *would rather/sooner, had better, suppose/supposing*. Such utterances express advise, inducement for cooperate action, offer:

'Well, said Crome, we 'd better be getting along' (ABC, 61).

'Suppose we stay here' (Briarpatch, 102);

15) CISA in the form of speech acts represented by utterances containing the verb of desire *wish* and, correspondingly, expressing regard. In such sentences verbs in subjunctive mood are used:

'I wish you would leave me here. I'd like to continue alone, then' (Briarpatch, 65);

16) CISA represented by speech acts expressed by nouns (with or without prepositions) or adjectives and conveying instruction:

'No hurry, Miss' (Briarpatch, 123).

'Careful, please!' (Too True, 76);

17) CISA of inducement represented by speech acts expressed by utterances with constructions indicating lack of necessity to commit an action: *It is no use...*, *It is no good*. Such CISA express prohibition:

'It 's no good going to work now. They are going to catch you and put you back in prison' (Briarpatch, 161);

18) CISA represented by speech acts expressed by utterances with causative meaning, i.e. describe the process of inducement towards committing an action. Such utterances include verbs *make, cause, force, desire*, as well as the *Complex Object* infinitive construction:

'I'll make you go with me' (Storm, 185).

'I want you to stay here' (Storm, 100).

19) CISA represented by speech acts expressed by utterances containing the verbs of wish. Verbs of desire express request, instruction:

'I want to persuade you to accept a fee of five pounds' (ABC, 40).

20) CISA represented by speech acts expressed by utterances with Complex Subject and For-to-infinitive construction with lexical content indicating the need to commit an action:

'You're not supposed to provide an attraction as well' (Storm, 60);

21) CISA represented by speech acts expressed by utterances with the verb *mind* followed by gerund. The form of declarative utterance expresses permission, the form of interrogative utterance expresses request of permission or appeal. This type of CISA can also be expressed by utterances with the collocation *have objections against* followed by gerund:

'Would you mind escorting me to a taxi?' (ABC, 122);

22) CISA represented by speech acts represented by utterances with the linking element *if you don't mind*. Illocutionary aim of such CISA is request for permission:

'But I'll just have this' — he indicated the cigarette — 'if you don't mind?' (Storm, 12);

23) CISA represented by speech acts expressed by utterances of ethical nature with the meaning of offer, invitation:

'It'll be nice seeing you again' (Too True, 238).

Non-conventional indirect speech acts of inducement used to reduce categorical nature of inducement. For this type of speech acts ethical forms, social status of interlocutors, their emotional state and external setting of dialogic communication are of great importance (Kudryashov, 2005:71).

Analysis of factual material prompted the following non-conventional indirect speech acts (hereinafter referred to as NCISA) of inducement:

1) NCISA represented by utterances indicating some external conditions explaining the need to commit an action:

'It's hot in here.'

'Just a moment, I'll open the window'
(Honour, 57).

'Look, the percolator's bubbling!'

Melanie unplugged the coffee pot.
(Storm, 114).

In the given examples direct orders to open the window and unplug the coffee pot are substituted by indication of high temperature and boiling water.

2) NCISA inducing the interlocutor to commit verbal action through the speech act of question by interrogating whether the addressee is intending to commit an action:

'Are you trying to say something, Melanie?' she asked softly.

'If I am, I meant nothing by it. You know, it's true!' (Storm, 74).

By using interrogative form the speaker encourages his interlocutor to communicate. Such question has motivational function coupled with the function of contact support:

'Are you going to tell me, or are you not?'

Dominie swallowed hard, and then fumbling in her pocket she brought out the letter and handed it wordlessly to Lucia
(Storm, 177).

Verbal and non-verbal reactions of the listeners indicate their adequate perception of the speaker's wish to induce them to communicate;

3) NCISA inducing the interlocutor to convey certain information by means of certifying question:

'You have news — yes?' demanded Poirot.

'It's about as bad as it can be. Sir Carmichael Clarke has been found with his head bashed in' (ABC, 92).

'Can you remember anything about them?'

'Not a damned thing now.'

'Sure?'

'Well — let's see — / remember a remarkably fat woman' (ABC, 117).

Perlocutionary effect of the given NCISA (conveying information) indicated that they have been perceived by listeners as motivating speech acts.

'She was pretty — yes?'

This question was met this time with a practical response. Maggie slipped off the table, went to her suitcase, snapped it open and extracted something which she handed to Poirot (ABC, 72).

Context shows that by asking about the appearance of the murdered girl, Poirot achieves realization of his illocutionary aim – to induce his interlocutor to show the picture.

Such questions may be presented as a hint, i.e. thought that might be understood by guessing (Ozhegov, 1984: 328). A hint is programmed by the speaker as an utterance that has and keeps double meaning. Such utterance can be interpreted both directly and indirectly, although the speaker's intent, of course, is for the listener to get the indirect meaning.

'You know your way now, don't you?'

'Yes', I said and went down the big stairway (Storm, 131);

4) NCISA inducing the listener to give information:

'There are trains, are there not?'

'But how can I get to the station?'

'I'll drive you to the station this afternoon' (Storm, 179).

Indirect speech act of inducement has additional pragmatic meaning of appellation (appellation is expression through which the speaker addressed the listener in order to attract his attention and induce him to commit an action desired by the speaker (Brusenskaya and others, 2005: 76)): he attracts the listener's attention and through that induces him to listen to the speaker;

5) NCISA inducing the interlocutor to commit an action through the speech act of question-request about details of the action planned by the listener. At that as a rule it is a special question that has presup-

position (preliminary knowledge enabling adequate perception of the text; background knowledge (Brusenskaya and others, 2005: 159)) that is knowledge of the listener's planned action:

'When will you go?'

'Don't push me on this. I want to think it out quiet' (Too True, 125).

6) NCISA aimed as inducing the listener to commit an action through utterances conveying the means of committing an action: \

'Only by speaking the exact truth you can help us to get on his track' (ABC, 78) (= *Speak the exact truth, then you can help us*).

'Tell him', said Megan.

The third party of the conversation clearly perceives illocutionary aim of the NCISA as inducement. It explicitly expresses induces by addressing the author of inducement – the second party of the conversation.

'The easiest way to answer the question is to ask her' (= *Let's ask her. It's the easiest way to answer the question*).

'And suppose she tells us another lie' (ABC, 133).

The speaker's line indicates that he perceives the original line as inducement towards action that he objects;

7) NCISA in the form of speech acts aimed at talking the listener into committing an action by indication of lack of undesirable consequences of this action (indirectly the meaning of encouragement towards committing an action is expressed):

'You see, mademoiselle, that the information for which I ask you can give freely without wondering whether or not it will hurt anyone' (= *Give me information. It won't hurt anyone*).

I'm trusting you now, M. Poirot. I'm going to give you the absolute truth' (ABC, 74).

As judged by his answer, inducement that is part of the speech act is adequately perceived by the listener as such.

REFERENCES

- Akimova T. (1992). Imperative Mood in the English Language, *Typology of Imperative Constructions*. Saint Petersburg.
- Austin J. How to Do Things With, *New in the Foreign Linguistics*. Vol. XVII: *Theory of Speech Acts*. Moscow.
- Brusenskaya L., Gavrilova G., Malycheva N. (2005). *Dictionary of Linguistic Terms*. Rostov University Press. Rostov-on-Don.
- Haimovich B., Rogovskaya B. (1967). Theoretical Grammar of the English Language. *High School Publishing*. Moscow.
- Ivanova I., Burlakova V., Pocheptsov G. (1981). Theoretical Grammar of the Modern English Language. *High School Publishing*. Moscow.
- Kiseleva L. (1978). Problems of the Theory of Speech Manipulation. *Leningrad University Publishing*. Leningrad.
- Korolev V. (1992). Full Forward Towards Success! The Best of Dale Carnegie. *Rostov University Press*. Rostov-on-Don.
- Kudryashov I. (2005). The Phenomenon of Communicative Freedom in the Oral and Written Discourse. *Rostov University Press*. Rostov-on-Don.
- Leontyev A. (1981). Psychological Peculiarities of the Lecturer. Knowledge Press. Moscow.
- Matveeva G. (1981). Problems of Scientific Text Pragmatics. Leningrad University Press. Leningrad.
- Ozhegov S. (1984). Dictionary of the Russian Language. *High School Publishing*. Moscow.
- Slobin D., Greene G. (1976). Psycholinguistics. Progress Publishing. Moscow.
- Sytnik L., Krivulya V. (1989). On Indirect Pragmatic Influence in Scientific Text, Pragmatics and Typology of Linguistic Communicative Units. *Dnepropetrovsk University Press*. Dnepropetrovsk.
- Tarasov E. (1990). Speech Manipulation: Methodology and Theory, Optimization of Speech Influence. *Moscow University Press*. Moscow.
- Thomas J. (1995). Meaning in Interaction. An Introduction to Pragmatics. *Pearson Education*. London.
- Veihman E. (2000). New in the English Grammar. *Astrel – Ast Publishing*. Moscow.

- Vinokur T. (1989). On characterizing the speaker. Intention and Reaction, Language and Identity. *Science Publishing*. Moscow.
- Zheltuhina M. (2004). *Specifics of Speech Influencing Means in The Language of the Media*, PhD thesis abstract. Moscow.

FACTUAL MATERIAL

- ABC — Christie A. (1990). *The ABC Murders*. London.
- Briarpatch — Thomas R. (1985). *Briarpatch*. New York.
- Honour — Archer J. (1986). *A Matter of Honour*. London.
- Too True — Shaw B. (1952). *Too True to Be Good*, Four Plays. London.
- Storm — Mather A. (1979). *Storm in a Rain Barrel*. New York.

PEDAGOGICAL PRACTICE WAY OF CONNECTING PEDAGOGICAL THEORY AND PRACTICE

MSc Božo P. Obradović, College of Professional Studies Educators, Gnjilane – Bujanovac, Serbia
E-mail: bozo.obradovic07@gmail.com

Abstract. The issue of linking educational theory to educational practice (educational work with young people) is highly topical and important issue for the science of pedagogy. One way of achieving this task is a pedagogical practice (PP) students. In paper we deal with identifying, comparing, and analyzing the curricula of vocational (Curriculum for Preschool Teacher (2007) and academic (Curriculum for Educators (2007)). Studies Teacher Training in Serbia, as well as educational disciplines and areas of pedagogical science derived from them. The results showed many similarities, but also differences when it comes to educational disciplines that are taught, the name of pedagogical practice, the number of classes to implement, ECTS (European Credit Transfer System), which affect the quality and coherence of educational theory and educational practice. In order to identify similarities and overcome weaknesses that accompany the pedagogical practice analysis, we came to know about the specifics of each of the six pedagogical practice. For each pedagogical practice defined specific goals and tasks arising from the curriculum, and in particular pedagogical disciplines taught at university. Each of these pedagogical practices is the ability to connect educational theory and educational practice and direct way to increase the quality of training and competence of future teachers for direct work with children.

Keywords: pedagogical practice, educational theory, curriculum, goals and objectives of the pedagogical practice.

1. REVIEW OF THE PRESENCE OF PEDAGOGY IN VOCATIONAL AND ACADEMIC EDUCATION FOR EDUCATORS

The reform process is a complex social and pedagogical issue. This is the second five - year period of vocational and academic studies of the Bologna Declaration (1999) and the Law on Higher Education (2005). The project of the reform that is expressed through the curriculum is more experimental tested on a sample of relevant professional and academic schools / universities, students, teachers, communi-

ties where they exist, before the widespread use of their. As such it is a problem for pedagogical science. Educational science plays an important role in the preparation, planning, implementation and evaluation of scientific content that is transmitted to the younger generation. To make this role more successfully carried out, it establishes its methodology dual principles and pedagogical work done preparing and training teachers for educational work. In Serbia, a significant number of vocational schools (Curriculum for Preschool Teacher (2007) and academic (teacher/pedagogical) Faculty academic (Curriculum for Educators (2007)). dealing with education teachers to work with preschool children.

If we go by the number of items in an accredited curriculum for the education of teachers in vocational and academic schools/colleges during their studies in vocational training of teachers, as a compulsory or elective program offered by 53 programs that belong to the same pedagogical science or realize that teachers are teachers. These plans are available through several semesters of 128 programs at vocational and academic programs in 95 studies (teaching/pedagogical faculties). From press to conclude that pedagogical science (theory) is represented with a number of scientific disciplines and fields of pedagogical science.

2. COMPARATIVE REVIEW OF EDUCATIONAL PRACTICE PLANS OF PROFESSIONAL AND ACADEMIC STUDIES

In linking educational theory and practice plays an important role PP. Pedagogical practice as the way in introducing students to the application of pedagogical

knowledge in the implementation of the educational work with children, it is a form of direct connection between educational theory and practice and a form of practical preparation of future teachers for inde-

pendent and high quality, direct educational work with children and beginning of permanent professional development.

Table 1. In accredited plans for the education of teachers in vocational schools and academic studies of PP is provided in all schools curricula:

| Studies | 1 sem. No. ECTS/per school./ Fac. | 2 sem. No. ECTS /per school./F ac. | 3 sem. No. ECTS/ per school./F ac. | 4 sem. No. ECTS per school./F ac. | 5 sem. No. ECTS/per school./F ac. | 6 sem. No. ECTS/per school./F ac. | 7 sem. No. ECTS/per school./F ac. | 8 sem. No. ECTS/per school./F ac. |
|---------------|---|---|--|--|---|--|---|---|
| 1. vocational | 9 – 1=2 s 2=2 3=1 4=1 5=2 9=1 | 9- 1=2 s 3=2 4=1 5=2 6=1 9=1 | 9- 1=2s 2=1 3=1 4=1 6=1 7=2 9=1 | 9- 1=1s 2=2 3=1 4=1 6=1 7=2 9=1 | 9- 1=1s 2=2 3=2 7=3 9=1 | 9- 2=2s 3=2 6=1 8=2 9=1 10=1 | | |
| 2. academic | 6 2=1f 3=3 7=2 | | 6 4=2f 5=1 6=1 7=2 | | 6 4=3f 7=1 10=2 | | | 6 3=1f 6=2 10=1 11=2 |

Evident in the table it can be concluded that PP is expressed through ECTS. It has a significant place in vocational schools for teachers in all six semesters in four semesters of studies. When it comes to PP is lacking differentiated programs and practices essential features called PP.

In the analyzed plans for PP used different terms, which affects the determination of the essence and understanding of the same, such as: an introduction to the profession and professional practice (Curriculum for Preschool Teacher, 2007) Professional practice - demonstration classes, practice, the practice of kindergarten, demonstration classes, methodical practice, pedagogical and psychological practice, pedagogical practices, didactic practice, integrated pedagogical practices, integrated - methodological practice, two - week professional practice (Curriculum for Educators (2007) the titles of the specifics of the technical issues related to, but not the obligation to implement a student in the

pedagogical practice in terms of direct connect theoretical and practical knowledge on the one hand and the practical training of students for direct work with children in kindergarten.

3. BASIC TASKS, METHODOLOGICAL ISSUES PRACTICAL REQUIREMENTS AND CONNECTIONS PEDAGOGICAL THEORY AND PRACTICE DURING THE PEDAGOGICAL PRACTICE IN PRE-SCHOOL

Study plans and programs for teachers are aimed at enabling students to put their knowledge and skills in direct practice with children. That particular importance is pedagogical practice (PP). Pedagogical practice as the kind of direct connection between educational theory and practice as a form of practical preparation

of future teachers for high - quality educational that is of direct work with children, but also the beginning of continuing professional development.

The subject of analysis is primarily pedagogical study disciplines and scientific areas that are taught and examined in vocational and academic studies.

The paper emphasizes the practical connection of educational theory and practice through the operationalization of the objectives and targets are achieved within six pedagogical practice. At the same time, based on consideration of the curriculum indicates regularity achieving the goals and objectives linking educational theory in educational practice. Processed, and operationalize define goals and objectives that students gain during every single practice.

Results and analysis of curricula indicate that the goals and objectives of PP implemented as:

3.1. Main goals and educational first practice - demonstration classes

The first pedagogical practice students are demonstrations classes. It is a first step planned pedagogical preparation of students - future teachers for immediate - educational work with children. The first practice starts demonstration classes (observing, exploring work, notification..) experienced teachers in everyday situations specifically staged in a nursery school in a one-week period at the end of the first semester. Demonstration classes aim is to provide the student meet directly with pre-school pedagogical institutions have, its organizational structure, the structure of children who are found in it, mode of life, travel, games and activities for children, distribution and use of facilities and equipment, staff who work in pre-school teachers in addition to - mentors who immediately realized the educational work with children in the group. Its function is an introduction - the first contact and has a

role to introduce the organization and operation of the kindergarten. Based on the monitoring and pedagogical issues and registration process, learn about the real and present situation in kindergarten.

Pedagogical practice demonstration classes not only attend activities supervisor to plan work in kindergarten, but systematic introduction to the different activities and educational different educational facilities in order to gain practical answers to many theoretical issues of pedagogy, psychology, methods of educational work.

Numerous are various goals, objectives, methodological requirements and practical questions posed to the students, and that should be implemented during the first and second continuous pedagogical practices in kindergarten. Methodological requirements for the first pedagogical practices are different. In the first pedagogical practices, student school kindergarten teacher in kindergarten should attending all the activities of children and teachers, through monitoring and observation, meet, monitor and investigate the overall pedagogical organization of work at the kindergarten; critically analyzed and recorded in the log book the most important:

- General information about the nursery,

- General introduction to the nursery (pre-school title; history preschools; employees working; mentor; telephone number, e - mail address.),

- To learn about the structure of educational groups (educational group formed in the manager,... taken from a pediatric nurse...).

During the first practice of student high school for teachers of vocational studies should monitor the attendance and the overall work of teachers and the children's activities introduce, critically analyzed and recorded in the log book the most important:

- Introduction to general issues and internal organization of educational work (model of pre-school (A or B), with pre-school children in a kindergarten as a sig-

nificant factor in the formation of personality and direct role in the student demonstrations classes depending on the kindergarten orientation program or group of work with children on the model A or B.

- Introduction to the specificities of children in the group (developmental abilities of children, with the number, structure and homogeneity of children in the group, the social climate between the children and the level of sociability among children in educational groups, children with developmental problems) with children in educational groups.

- To learn the ways and forms of co-operation with parents and to carry out such a pedagogical and methodological analysis of the organization and operation of the proposed measures

- Introduction of pedagogical and psychological conditions of educational work and research and analysis of the educational work of the group,

- Introduction to the mode of living and working day (morning schedule activities for children), the arrival of children, morning exercise, of self. Depending on the environmental conditions, the development of pre-school, preparation mentor - teachers to work with students, and the goal to be achieved by demonstration classes;

- Getting to know the time schedule of daily activities and in particular how they rotate with respect to age and legality of the educational process,

- Learning to plan activities for the children's individual choice, directed and combined activities, morning physical exercise and leisure breaks

- Introduction and analysis of time to meet the hygienic, physiological and health needs, meals and lodging

- Introduction to organization and deployment of space (inside the room and outside space, as appropriate age characteristics of child development, how their cognitive needs, as an incentive (motivational);

- To meet the pedagogical and psychological situation of introducing children to live and work in pre-school, children's position and the position of each child's educational group;

- Introduction to general information about the child and the psychological characteristics of children in the group,

- Learning, Research and Analysis of the pedagogical organization of life and work in preschool and especially: how is it adapted to the child and his needs

- To explore and describe the pedagogical development of the children in the group with respect to the goal and tasks (physical, intellectual, moral, aesthetic, business development and education of children)

- That be on the basis of acquired knowledge estimates cognitive characteristics of children's development and social- emotional capabilities of children in the group.

- On the basis of established goals of preschool education in the physical, social - emotional (social, affective), environmental, logical - mathematical, labor, transportation, speech, art, music, drama activities), cognitive development through the revelatory activity of the living world; (man, the world of animals, plants, etc.) of the material world hear their exercise and measures to be taken in the future;

- To get acquainted with the immediate implementation of their tasks in working with children;

- Determine how a group of children where possible (composition according to individual groups) exist within these groups (advanced, slower);

- To review and determine what are the characteristics of communication within the group, the group and the individual, the individual with more people, individuals and educators, preschool teachers, kindergarten teachers and the individual and how they affect the development of children;

- Research and introduction to child psychology and specificities of children in

a particular age group (the number, structure and homogeneity of children in the group, the social climate among children and between children's level of sociability, forms of communication with children, children with developmental problems)

- Based on the monitoring of children in a variety of pedagogical and didactic situations compiled a list and a brief description of the topics, activities and games the way they are implemented mentor;

- The student is directly involved as a form of aid educator - Mentors in games and activities implemented by the teacher with his group observes and monitors the activity of teachers and children.

Therefore, the logical question is what's demonstration classes? Demonstration classes are a word derived from the Latin word *hospitari* is the guest host; visit or attend lectures (activities in kindergarten) as a guest or as a spectator. Demonstration classes today has a broader role and function, and in the pedagogical sense means the planned stay in kindergarten that from a class.

It is not only planning, but also observing a systematic way to introduce and study the entire educational - educational work in kindergartens.

Practice demonstration classes students performed at the end of the first semester, when the students listened to lectures and theoretical exercises and perform other duties of general pedagogy, preschool pedagogy, psychology preschool child and other scientific fields. Demonstration classes involves student participation in all activities of the group of children in kindergarten. The first practice demonstration classes for five working days (25 hours) in order to;

- Familiar with the overall organization and implementation of the educational work of the group of kindergarten.

- Demonstration classes, and other educational practices students should contribute to future job teachers in kindergarten gain access to all features, the internal

organization of educational work and the role of teachers in development and learning for preschool child. It achieved not only by attending activities, but also systematic introduction to the different types of work, observing and registering as the initial phase of the research, study and analysis of educational work in kindergartens.

3.2. Main goals and objectives for second pedagogical practice demonstration classes

Another pedagogical practice is a professional and logical continuation of the first practice demonstration classes. Organized and implemented by the end of the second semester. The practice is, and the reason the program is organized in the last week of May as the students through lectures and practical exercises familiar with the contents of the program in the second semester. It lasts one week (25 hours). It continues the realization of the goals and tasks initiated demonstration classes at the first practice. During these practices the student with the help of teachers - mentors, associate educator and psychologist, as well as with pre-school director aims to further introduce and analyze the pedagogical organization of kindergarten. Students are required to contact at the educator - mentor and support staff and to direct work with children comprehensively achieve certain goals and objectives of the first pedagogical practices, and conduct specific tasks other pedagogical practice.

During this practice the student should (during classes and teachers working with children as outlined in the first pedagogical practice - without having to repeat what has been found and written in the log if in the same kindergarten - group) participation, talking with educators mentor and observation of the educational process, talking with teachers, children, professional associates to penetrate deeper into the quality of teachers, assessment re-

quirements the organization and implementation of educational process with the children in the kindergarten and in the environment they implemented to work with certain groups of children. This information is registered in your diary and analyzes the conditions, organization, implementation, outcomes, educational process and occupies a professional position. During the demonstration classes meets the overall organization and educational work of teachers, faces a direct application of the theoretical knowledge of pedagogy and psychology. The knowledge a student needs to critically analyze the diary of pedagogical practice;

- Attending, monitoring and recording of children's group activities during the day to learn about the pedagogical organization of kindergarten (different forms of organization and work with children on different methodological approaches features; observes and monitors the activity of teachers and children;

- To learn about the types, structure, layout and daily during educational activities, as well as technical and material base of these activities;

- Exploring the tasks that meet the conditions for realization of educational activities, especially pedagogical organization of the group works model for pre-school - group (A or B);

- Introduction and description of equipment, space toys, and other didactic resources;

- To introduce various forms of organization of life and work in a group of kindergarten and to determine the log for that particular day;

- To effectively identify and analyze internal communication in a group (speaking teachers and the speech of children, how to understand speech, ways of communicating, listening to each other, falling in question, request additional information, permission for some action, etc.;

- To learn and train how to organize space, time and activity in preschool;

- To record, investigate and analyze the activity of the children in the center (s) of interest;

- The analysis of space, equipment, teaching resources look (positive or negative) of their impact on educational work with children;

- To learn about the social environment as a factor of educational work in kindergarten through communication; talk with a supervisor, support staff of the kindergarten, nursery visits are carried out in a specific environment, and based on these findings highlight their views, opinions, suggestions and needs for cooperation between different kindergarten and the environment in which tasks are carried kindergarten program;

- To record the children who deviate from established rules of development, behavior and learning and that the measures taken mentor working with them, and to take the position that professional measures be taken to the individual child;

- To get acquainted with the organization of activities and time schedule (pedagogical mode of life and work), removal activities (self- activity, rest, how much idle time, break;

- Discipline, ie. how many children are respected, as they have the confidence and freedom and what they are willing to own tasks performed various activities independently and creatively) and how many children are active in the group, how the activities custom children's abilities, interests, needs, etc.;

- Examines and evaluates the cognitive development and developmental potential of children in the group (attention, memory, visual perception, verbal comprehension) and determine whether they are consistent with the application of pedagogical requirements;

- During the demonstration classes a student has a duty to investigate and analyze the interior and exterior of kindergarten and how it functions for working with children;

- During a student demonstration classes in addition to cooperation with the mentor, lead and communicate with support staff (such as a teacher, psychologist, assistant to the language, physical education, music, art and other institutions in order to systematically introduced to the functions and roles of teachers, educators and needs teamwork.

During a student demonstration classes on the basis of an agreement with the educator-mentor involved in the implementation of parts of the program.

3.3. Main goals and objectives for the third pedagogical-didactic practice

The third pedagogical and didactic practice of vocational teachers is organized and implemented by the end of the third semester (the last two weeks of December) and lasts for two weeks (10 days), or 50 hours.

The aim of the third pedagogical - didactic practices to student based on theoretical and practical knowledge expert examine the didactic requirements, capabilities and organization of educational work. (Based on observation, monitoring of the activity of teachers and children, studying and analyzing the pedagogical and didactic documentation work) kindergarten and the environment where the school is located, for the organization and implementation of educational activities in a particular group, to learn the material and human conditions for educational work studiously to meet the annual curriculum kindergarten, scope and structure prepare teachers for working directly with children and others.

In the pedagogical and didactic practices students are introduced, analyzes and personal professional opinions about the work of the group based on understanding and analyzing:

- Pedagogical organization of the kindergarten (size and composition of the group, forms of organization and work

with children, time scale for implementation, activity, hygiene and health reasons as an educator and how prepared children, can provide the same or different requirements for children or a group of estimates that motivates them);

- To learn about the basic structure of the curriculum of kindergarten and expert analyzes (annual, special monthly, weekly or thematic plan of mentor teachers);

- Space and equipment kindergarten equipment and tools for the educational work and examines kindergarten teaching capabilities and areas where the school is located (which means there are compared to normative);

- To get acquainted with the forms of co-operation with the wider social environment and to make Methodological analysis of cooperation, the proposed measures;

- Looks at the building and equipment of the group means and didactic material for direct educational work with children and analyzes the effects of equipment and implementation of teaching and audio-video equipment;

- Introduction to the conduct of pedagogical documentation and records;

- Observation, direct participation and assisting in activities that the mentor realizes with children;

- Analyze the effects of using interior and exterior kindergarten in didactic organization and implementation of educational work with children in the group and organization design, layout for educational work with children and considers the appropriateness of the didactic and the use of space (as well as that all rooms used group - group room to list them...), educational personnel, preventive health care organizations in the study area and the types of teaching materials and resources which are distributed in the rooms or the centers of interest of child nook and didactic organization exterior (garden and playgrounds, sports fields, rooms with equipment: swings, seesaw, ladder, slide, crawl and

equipment for hooking, the vessels of the equilibrium paths for biking, scooters and the like, a corner living nature and the other as a function of the implementation of the curriculum;

- Perceived preparedness of teaching materials, preparedness child activity, whether and how to instruct children to perform activities, and how to encourage and teacher praises children through action steps that, how to motivate them, what is communication between parents, children and teachers;

In the pedagogical-didactic practice student meets and analyzes the pedagogical documents kept in the nursery school:

- Development (Annual Plan and work program of the kindergarten)

- Meet with the program of work of teachers: semi, thematic / monthly, weekly and daily curriculum of teachers in a particular group;

- Introduction to the didactic structure of the written preparation of teachers - mentors for direct work with children (activity, play, visit, etc.)

- Studying the internal organization of the didactic kindergarten, especially to record activity in certain areas of educational work from the point of application of active methods and forms of organization and work with children;

- Attending meetings of professional assets (PA) and pedagogical higher (PH) when discussing organization educational work;

- Introduction and overview of the didactic schedule games and activities designed (directed, independent activities for children's choice, the combined activities, other activities), children ate and slept during the day as compared to day time mode;

Introduction to pedagogical documentation and records maintained by the kindergarten teacher / mentor and with:

- Book of teachers and manner of conducting;

- Preparation of staff for direct work with children;

Documentation of the children: diary children, sex education of parents (from the log and report);

- To explore and do sociogram on the structure and relationship of the group;

- To investigate the characteristics of twigs and children in an educational group in which to practice;

- To attend parenting meetings and individual interviews, observations and leads critical the proposed measures;

- Attend meetings of professional bodies;

In this particular monitor and analyze the relationship between teachers and children, pedagogical climate between the children, the relationship between teacher - parent.

Introduction to the existing data on the development and education of children, as well as the results of educational work which children achieve at different methodological facilities to practice after could feel and say "Everything you need to know I learned in kindergarten."

3.4. Main goals and forth methodological practice

Implementation of methodological practices, organized and implemented by the end of May in the fourth semester, the last two weeks, or 10 working days (50 hours), in preschool. The aim of the practice is bound to follow the student, and the didactic-methodic approach to analyze the quality of the pedagogical practices of teachers working with children, games and activities, in particular reviewing the achievements of objectives and tasks of children and teachers in the group with special emphasis on:

- Involvement in the planning and preparation of educational activities, as well as direct support teachers in how to perform them;

- Didactic analysis methodological realizing its goals and games and group

activities (as they occur, how to respect age, as children are the subjects of the process);

- To monitor and analyze the collaboration with mentor teachers and parents according to their ability to become involved in the conversation;

- Educational facilities and resources (of elections, successful preparation and implementation);

- Examines the feasibility of the goals and objectives of preschool education through activities and games;

- To determine what and how to use financial incentives for activities and play of children of a certain age;

- Whether and how the mentor performs assessment success of their own activities (evaluation) of both children and teachers in their engagement, considering their age and the duration of the planned tasks;

Research and critically exploring the phases through which it passes (introduction to the themes of the title, method of instruction, means, methods and forms of work and other conditions of educational work: pedagogical, psycho-logical, aesthetic, health and the adequacy of the use of interior and exterior kindergarten and spatial organization of the rooms used by the Bank as a means of stimulating activities for children of a certain age);

- To be actively involved in various children's activities, forms of work with children and teachers to monitor and analyze communications teacher-child, child-child, ie. teacher to communicate with children, with parents;

- Didactic and methodical introduction and analysis of the contents, which are implemented through activities and games (as far as the contents are scientifically relevant, appropriate to the age and ability of students how many children were adopted);

- Follow, study and analyze the methodological structure of games and activities (how they learned science

knowledge in practical work with children in the group);

- Monitor, and analyze the representation of different forms of organization and work with children on different methodological facilities;

- Learning and didactic-methodical assessment equipment group in which to practice (which means there is, and that does not and need to be purchased, the conditions for educational work) and their ability to participate in the development of teaching aids;

- Perform general pedagogical, psychological, aesthetic, hygiene and health evaluation of the conditions in which didactic methodological procedures implemented educational activities;

- Meet and didactic-methodological assessment of the adequacy and used space (that all rooms used educational group);

- Monitors and records a minimum of six on the basis of observations made methodological analysis of each activity especially from all areas and in all age groups;

- Recorded, considers and explores the didactic possibilities of the kindergarten and the environment where the school is located,;

- Monitor captures and makes methodological analysis of the articulation activities (adequacy and appropriateness of the use of time in the activity);

- Vegetable and information on the implementation of teaching activities (what, how, when, how);

Spatiotemporal structure of games and activities;

- Introduction to normative kindergarten: with the statutes of the kindergarten rules work;

- Writes and special observations and recommendations where some of the educational work with children changed (organizational and technical, and practical experiential observations);

- To learn the ways and forms of preparation and conduct methodological analysis of adequate representation forms,

methods and activities in the game and that they have been properly selected and properly applied by educators;

- The content of the activities (scientific accuracy, proper mastering of skills, suitability for children, and quantitative restraint);

- How children adapt to different methodological facilities;

- To get acquainted with other forms of organizations working with children in addition to activities and games;

- Introduction to the work of professional staff: teacher, psychologist, pedagogue;

- Adequacy of choice, preparation and application of structures, nooks and aids in working with children through games and activities;

- What is the correlation between educational areas (there - there, exemplary, successful, functional);

- What kind of activity, motivation, and creativity independence children at play and activities;

- Assessment of preparation of mentors for the realization of content (organization of work, training in the application of teaching methods, resources), the ratio of children;

- On the basis of the above, and realized that a critical analysis of the tasks and records of all the activities and games of children and teachers in the mentor group;

- To inform and empower them how to organize space, time and activity in preschool;

- To direct the work, with the assistance of the mentor is gradually involved in some of the activities of children and teachers and the gradual inclusion of the student in direct aid educator - mentor in the preparation of teaching materials, greeting cards and postcards, organizing celebrations, games, visits to local institutions environment, organization of events;

- The work of teachers (behavior and content of an organization work, training in the application of teaching methods, teaching techniques handling, attitude to-

wards children, creativity, and overall impression: preparation, appearance, speech, tidiness, external appearance).

3.5. Main goals and objectives for the fifth methodically pedagogical practice

Fifth pedagogical methodical practice is organized at the end of the fifth semester for up to ten days with the aim of becoming independent student on the basis of pedagogical documentation kindergarten (yearly, monthly, weekly curriculum) with the help of mentors and associates kindergarten (teacher, psychologist, etc.);

- Independently plan, ie. to develop the full educational work with children, parents and co-workers during a ten-day methodical practice;

- Immediately prepare and develop proper application methods, forms and means of work - organize and conduct two activities from all six areas covering methods of educational work (visibility methodical structure, logical coherence and correlation with programming on other areas of educational work) exemplary, successful, functional), the preparation and design of learning materials;

- Organize and implement the planned program content in direct work with children, especially taking into account the children's motivation, activity, independence and creativity; mental and physical fatigue; behavior of children during the adoption of the planned activities; difficulties faced by the children at play, work and activities.

- During the methodical practice of organized activities done in each of the six methods for the preparation of two written to impart a professor of methodology;

- Keep a record of adapting children in the group and corrective work with individual child, (what, how, how much) How were you involved in the work of teachers with this group of children?

3.6. Main goals and objectives for the six independently-methodological practice and pedagogy

Sixth pedagogical practice has continued and the final form of a planned and organized training of students for independent work. This practice is usually organized at the end of the sixth semester (the last three weeks in May) and lasts for 15 days (75 hours). According to the planning and organization of pedagogical systematic work should be organized in the agreed pre-school. The requirement that student goes to the sixth pedagogical - methodical practice are successfully completed and certified prior educational practices, the successful completion of pre-exam as maintained, defended and positively assessed by at least one activity from each methodology (speech development, learning environment, development mathematics concepts visual, physical and musical) educational work.

The practice of working with children in the DV student shows how he mastered the theoretical knowledge, as he is trained and prepared for creative application of knowledge through lectures, exercises, and particularly methodical exercises and seminar papers and, as previously conducted practices, preparing for this complex and responsible work.

As the title indicates that concluded in the course of this pedagogical practice student is not only a participant, but on the basis of theoretical knowledge and experiences gained during the previous five continuous pedagogical practice, and with the help of mentor teachers, educators and other associates nursery and Professor, I will organize and conduct educational work in the group (self - didactic-methodical design, organize and implement entire educational work with children in the group is staggered).

With the help of mentors independently plan, organize and implement the overall educational work with children

(working with parents, social environment).

The planned work of the last independent pedagogical practice implies that a student on the basis of knowledge of relevant science education for pre-school children on the basis of successfully performed the previous five practices that enable the same immediate transfer (transformation), and the associated methodological designs in the planning, programming, methodical preparation for the activity. Organized and realized - teaching the children in the group.

Independent work of students in the implementation of programs in six pedagogical practice, the student requires:

- To organize and implement the overall educational group work with mentor teachers (student is required to be in writing and other didactic aids and materials prepared for direct educational work and the work of keeping the log and other pedagogical documents, reports preparation for each activity by methodological requirements that are aggregated in lectures and exercises);

- Student is required from each of the six methods planning, preparing and implementing the four practical activities (done by four written by the methodology of the preparations that are professors the methodology adopted in the exercise;

- Establish and achieves adequate professional support and assistance to parents in the community: the planning and implementation of the planned activities;

- Participate in the work of expert teams of educators;

- This methodical practice to dominate and research for graduate work. (so-called little research)

Only after successfully implemented these practices (which the student received an opinion from the nursery and the signature of the internship successfully signed together with the director or teacher and teacher-mentor) student is entitled to apply for and take the exam from all (six) methodology.

4. CONCLUSION

In this paper an attempt is made on the basis of the analysis of curricula for the education of teachers in Serbia determine the goals and objectives of linking educational theory with practice through PP-pedagogical practice. At the same time an attempt is made operationalization requires the student to realize the pedagogical practices. By performing the same, and tracking of student shows how PP- pedagogical practice has mastered theoretical knowledge, as he is trained and prepared for creative application of knowledge in working directly with children.

REFERENCE

Curriculum for Educators (2007): Faculty of Education, Beograd, Jagodina, Prizren, Sombor, Užice, Vranje.

Curriculum for Preschool Teacher (2007): College of Professional Studies in Education of Teachers, Aleksinac, Gnjilane - Bujanovac, Kikinda, Novi Sad, Pirot, Šabac, Sremska Mitrovica, Vrsac.

Obradović, P. B., Krulj S. R. (2013). Metodika vaspitno-obrazovnog rada, Priručnik za pedagošku praksu budućih vaspitača, *Učiteljski fakultet*, Vranje

The Bologna Declaration and Higher Education in Serbia (2007), SAO, Beograd

Vilotijević, M. (2000). Didaktika 1, 2, 3, *Naučna knjiga*, Učiteljski fakultet, Beograd

PREPARING STUDENTS FOR THE TREATMENT OF A NEW TEACHER CONTENT, AN IMPORTANT PREREQUISITE FOR THE SUCCESSFUL IMPLEMENTATION OF THE TASK OF TEACHING

Dr. Zvezdan Arsić, Faculty of Philosophy, Kosovska Mitrovica, Serbia
E-mail: zvezdanars@gmail.com

Abstract: Success in any type of activity depends on thorough preparation. Processing of new teaching facilities, or the acquisition of new knowledge in the whole course of the educational process is one of the most important prerequisites for success in the implementation of the tasks of teaching. When it comes to this problem, the analysis of available peda-gogical - psychological and didactic and methodical literature, indicates that it mainly discuss the preparation of teachers, which is certainly needed. However, the implementation of teaching together and actively participating teachers and students, and the modern conception of school based on the students' activities. The above observations lead us to the conclusion that preparing students for teaching is equally important as the preparation of teachers, although it is somewhat more specific, given their status in the classroom.

Keywords: teaching, student prepara-tion, teaching content processing.

DEVELOPMENT OF VIEWS ON THE IMPORTANCE OF PREPARING STUDENTS FOR THE TREATMENT OF NEW EDUCATIONAL CONTENT

The problem of preparing students for the processing of new teaching facilities has been the subject of attention of many authors, who are from different aspects studied and analyzed the educational process. Still, Jan Amos Komkanski (1954, p. 152), stressed that students need to "warm up" to discuss a subject, "so that at the beginning of each class gain the recommendation of new material, or encourage any issues from the old curriculum to it is linked with the new, or from what will only work to realizing their ignorance of the area warmed by a lecture and a greater desire to receive

explanations." Stressing that the development of uniform multilateral interests is one of the main tasks of teaching, Herbart (source: Žlebnik, 1955, p.116) as a condition for their formation according immersion and reflection. Both of these concepts, the best understanding of the relationship between performance and in their course of treatment is determined that you need to go each teaching unit known as the articulation of teaching. Accordingly Herbart distinguishes four degrees - clarity, association, system and method, which he calls the formal stages of teaching. The first two belong to the immersion and objective in nature, since they relate to what needs to be processed, while the other two are thinking and subjective in nature because they express the versatility. "The gathering and sorting of a conscious entity." The above views of Herbert and understandings with respect to articulation continue later elaborated by his followers of the chiller and the Rhine. Ciler further developed the theory of formal Herbaba-rtov's degrees, such as from the first step (clarity) made of two, ie. level of analysis and synthesis, thereby gaining five degrees, giving the fifth stage name of a function (application). In this form of the formal steps are kept to the end. What is a problem from the point of which is the subject matter of our study specifically, relates to the fact that the first stage, ie. analysis (or so-called Ciler preparation) refers to the analysis of children's experiences, to the second stage (synthesis) during lectures facilitate the perception of new material. So, chillers believes that "the first stage" to analyze old, unregulated,

raw mass of children knowledge, to come to clarity and consistency, and that all material should be refined to create a disposition to receive the new." (Source: Mladenovic, 1935, p. 531). Unlike chillers, another follower of Herbart Rhein at the beginning of their articulation structures of five stages (preparation, lecture, partnership, understanding and application), represented a special entries relating to the indication of the target. Under him, Rhein means that in the minds of students prepare a place for acquiring new shows, ie. to encourage students to cooperate with them to create an emotional mood etc., and on that says "no bane immediately to the door and into the house, but to be sure that everything is ready for reception" (ibid.). A deeper analysis Rajnovih understanding leads us to the conclusion that on the first stage of which is called preparation, interpreted in terms of parsing already acquired knowledge of students in order to acquire new knowledge, and repetition of old material which will be upgraded to the new.

New school breaks with Herbart conception of teaching which was based on associative psychology and its concept is based on voluntarism. The essence of this concept is based on finding a "didactic key" which would create conditions for activating students at all stages of the educational process, including preparation for the introduction of new teaching facilities. On the way to achieving that goal, it was different solutions, who, for example, observation and identification of specific problems in social practice (J. Đuje, G. Kerschensteiner), setting work objectives (P. Petersen), collecting concrete materials (A. Ferier), and the like.

In the works of Soviet didactics prevalent notion that preparation or the introduction of students to teaching a special stage of the educational process, but the impression is that the content of the preparation, mainly down to the repetition of previously processed teaching content. P. N. Gruzdev (1950, p. 113), which

states: "In order to attract the attention of students and facilitate understanding of new material systems, it is necessary to indicate the beginning of the class on the topic, connect new material with the previous extract and 2-3 points in the plan of lectures". I. N. K. Goncharov (1951, p. 44) in his five-point articulation structure of the first stage called the repetition of old material, as evidenced by the aforementioned statement and leads us to conclude that such treatment is to prepare students for the processing of new teaching facilities, mainly dominated by the Soviet didactic texts.

In this section relating to a historical overview of the development of ideas about preparing students for the processing of new teaching facilities, we must point out that in our pedagogical and didactic literature, this problem has not been adequately treated. At this statement, the analysis leads us "the most exploited" textbook pedagogy and didactics authored (Krnjeta, 1979; Janjušević, 1967; Pataki, 1952, 1953 Teodosić et al., 1968; Šimleša, 1978,...) very little attention gave away the elaboration of problems pertaining to the preparation of students to process new learning content. For example, only in the eleventh edition of the textbook Pedagogy in the newsroom S. Pataki (1967, p. 111), in the chapter on the stages of the teaching process points to the specificity of the problem and concluded that the stage of preparing introduces students to teaching, the understanding of the issues or problems in the plan of work and the ways of acquiring new knowledge and highlights requirement that at this stage should motivate students to cognitive activity, develop curiosity and interest them in acquiring new knowledge. However, apart from such a treatment of this problem, we must stress that there are authors (Pollock, 1970, 1975; Prodanovic Ničković, 1974;) that prepare students for the introduction of new teaching facilities devote adequate attention and importance. Also, the M. Bakovljević (1971 and 1983) and S. Čanović

(2002) point to the importance of preparation in the processing of new teaching facilities and significantly contribute to creating the conditions for overcoming the many problems that exist in this area.

Meaning, essence and importance of helping students prepare processing new course content

Every day human practice shows that each work should be preceded by thorough preparation, and the preparation of a range depends on the severity and complexity of upcoming work. This also applies to teaching because teaching is complex work process, which requires a deliberate approach to both teacher and pupil. The complexity of preparing students stems from the fact that the educational process at all stages of a cognitive, organizational, technical, psychological and didactic-methodical way. This means that in the course of preparing students for the introduction of new teaching facilities should make a thorough preliminary cognitive, organizational, technical, psychological and didactic- methodical character, and their goal is to be focused on creating the conditions for success in this field. It remains, therefore, to prepare students should result in the creation of favorable objective and subjective conditions for the acquisition of new knowledge. The objective should be to create conditions in the classroom, that is school, and the subjective conditions contained in the student who needs to improve their knowledge.

The essence of the cognitive aspect of preparation is reflected in the fact that students are using appropriate methodological procedures informed about what to learn, what will be done with what will be syllabus meet, which will be problematic process that will use the resources to acquire new knowledge how long will

address specific content, etc. In addition, students in advance is a project working to solve meaningful problems. Thus, this aspect of preparation aims that students receive the necessary cognitive orientation to the main part of the work that awaits them.

Organizational and technical aspects of preparation relating to the implementation of the tasks related to the preparation of teaching aids to be used in the work. He also refers to giving instructions to students on the way and technique work because following their individual work, a very important and in the part when you need to form a working group.

Preparing students for the introduction of new teaching content has an important psychological effect, and it is, above all, to motivate students to work which involves an active attitude towards the acquisition of new knowledge, the awakening of intellectual curiosity, creating a favorable working atmosphere, causing psychological stress, which results should that has an emotional win over the students to cooperate. The psychological aspect of preparing students is very large and complex and refers to the launch of their mental strength and potential that is the putting into operation their intellectual and cognitive mechanisms. If you happen to be in the main part of teaching yarn with some internal resistance, surely there will be a problem, and in such circumstances the optimum results and success of the advance off.

Desired positive teaching situation when it comes to preparing students for the processing of new teaching facilities is encouraged appropriate didactic and methodological procedures. This means that the success in the implementation of the tasks set very significant didactic and methodological aspects of the preparation, for it is didactic and methodical procedures are a necessary link between the set and its implementation. In other words, they mediate in achieving the tasks set. The

methodological analysis of preparing students for the introduction of new teaching facilities, indicating that in this process there is a range of dynamic threads are interwoven, and that is through methodical processes required systematized into a harmonious whole (Pole, in 1975. Pp. 48).

All aspects of preparing students are functionally linked and if that relationship neglect, be prepared to assume the character of a formal, isolated or even "artificial" teaching degree, which is unnaturally inserted into the structure of the teaching process. Unfortunately, it is in the classroom very often, which suggests that the purpose of preparing a failure. So, do not prepare to prepare, but the preparation that is focused on the main part of the paper that immediately follows the preparation, ie. preparation is to be compared to a functional connection with what follows the preparations and those with which the preparation is intended.

Methods and processes of preparing students for the treatment of a new course content

The tasks related to the preparation of students for the processing of new teaching facilities are numerous and exercise is through adequate and diverse ways. Multiplicity of tasks cannot be accomplished in one way because that can not encompass all its breadth and realize its importance. In order to achieve the desired functionality and adequacy of educational facilities that will be processed, the contents of preparing students to be sufficiently broad, diversified and resilient. In line with previous findings and imposed the requirements set forth in the process of preparing students for the introduction of new teaching facilities there are two aspects:

- preparing students for the processing of new teaching materials in teaching that takes place under the leading role of teachers and

- self - preparing students for the processing of new teaching facilities outside school hours.

Methods and procedures to prepare students to handle the new curriculum content in the classroom

In teaching students to process new learning content preparation of teachers, which is understandable given his leadership role. For this reason, the choice of ways to prepare students to handle the new curriculum content in the classroom depends on the skills and qualifications of teachers because he needs to choose the most appropriate contents and didactic-methodical procedures. During the historical development of education and understanding about how to prepare students to handle the new course content, apply the different techniques for different students and didactic - methodical procedures by which it is implemented. However, due to the nature of the teaching process and cognitive processes in it, preparing students for the introduction of new teaching facilities can provide the expected results only if they take into account the specific requirements whose core concerns:

- presentation of interesting facts from the history of science that deals with the new curriculum content;
- practical explanation of the lesson;
- analysis of concrete phenomena of life in terms of assistance to the eve of the problem;
- formulation of the problem;
- a reference to the problem by formulating questions;
- demonstration experiments or subjects;
- joint - planning process of the lesson (new curriculum content) and

- productive repetition.

Taking out the interesting data from the history of science is a way of preparing students for the introduction of new teaching facilities, suitable for all those topics or instructional units that include significant discoveries or inventions in the history of the particular science. These topics are presented in the curricula of many sciences, as each science in its development had periods of significant discoveries were conditioned its progress in terms of getting more information of specific natural and social phenomena. In order to efficiently preparing students for the introduction of new teaching facilities, it is necessary that the teachers present an interesting example or fact of history that will indicate the moments of invention. It can have a positive effect on the students in terms of inducing the necessary intellectual curiosity and deepening their desire to meet with that invention, which creates favorable conditions for students to a subject that will be subject to processing form a positive attitude.

The practical explanation of meaning of the lesson is conditioned by the knowledge that each teaching unit has the meaning in social practice (production, economic, medical, educational, etc.) and that there is no knowledge that is gained by studying a particular course content for which it can be argued that it is quite independent of human practice. All knowledge has a direct and specific application in the life and work of the man, the only question is whether the knowledge that man has acquired forests to implement in practical activities or not. Practical reasoning aspect of the lesson, teachers can take advantage of that, we will briefly explain to students where, when and how their knowledge can apply. This creates conditions create conditions for students to understand the meaning of the introduction of new teaching facilities and to make sure the concrete and practical use of new knowledge when the opportunity arises.

Analysis of specific phenomena of life in terms of assistance to the eve of the problem is directly related to the practical exposition of the meaning of a teaching unit, but for something different, and because this method of preparation means that the topics selected from the practice that became the basis for the introduction of new teaching facilities. Therefore, the content of the teaching unit coincides with the content of the specific phenomena in practice, i.e.. processing the teaching unit, students also learn about selected part of the immediate reality. This way of preparing students for the introduction of new course content is particularly effective if they are parts of the reality of the students are interested in, if they are to solve the problems involved, if they are the business and otherwise present difficulties in life or thought-provoking, and if by that part of reality students have already formed an active relationship.

Making the problem by asking the simplest and most cost-effective way to prepare students for the introduction of new teaching facilities. Of course, this does not mean that it is the most convenient and it by all means you should always apply. Questions the students may be asked to variations to consider these to them and try to respond, or to have the rhetorical character, ie. the teacher asks questions later, during a teaching unit on them is responsible. In this field, special didactic value and importance of having alternative psychological issues that students bring into the dilemma with them causing spiritual turmoil, the psychological tension, which is the basis and essence of preparation. By asking questions about what is unknown to students, when the new content comes, they are placed in a state of anticipation answer that will satisfy your curiosity, and this experience a spiritual calm, as it is widely known that every question has an answer. This means that, although the students in terms of the introduction of new teaching facilities, and answers do not know what is normal for

them the feelings of having to find out from the teacher what brings them into an active relationship in the process of acquiring new knowledge.

Demonstration experiments or subjects, is also a way of preparing students for the introduction of new teaching facilities, especially if used for this purpose are experiments whose external manifestations of internal legality particularly effective. While students still do not know anything about the laws contained in the experiment demonstrated: however, they ascertained his score on the basis of which they are imposed many question such as why certain events happen, why there is a change, what causes all of these events and the like. The above questions do not have to be vocally, but interpreted it as indicating the occurrence of curiosity, What is a good psychological preparation for further work? The purpose of this way of preparing students for the introduction of new teaching facilities, reflected in the fact that the students presented some activity in which the apparent conclusion that they will be interestand occupy their attention, although their mere appearance is not yet known. The end results of this kind of preparation should be to develop interests that will serve the reader joining in further study of the problem.

Joint planning process of the lesson comes from the demands of modern teaching, the essence of which lies in ensuring that students become real stakeholders in the organization and implementation of the educational process. This way of preparing students for the introduction of new course content can be applied for the announcement of the lesson, when the teacher invites students to take a stand on what the subject wanted to know. Their statements teacher accepts, if necessary, supplemented and corrected them, and all along among so it has its own structure. At the end of may, and it is desirable that the visible place (board or video - beam) Print and present a joint plan

of treatment. Joint planning process of the lesson is also significant from a psychological point of view. Students who participated in the formulation of the plan, with some curiosity will wait one moment when the teacher's presentation to get an answer to the question contained in the joint plan. In addition, the preferences of students is important and in the part that affirms his subject position, which they certainly cannot leave you indifferent.

Productive repetition in preparing students for the introduction of new course content assumes that the repetition of old material, ie. what is in the course of teaching cultivated, should be fully and always off. However, what in this area can be effective only if they are represented the highest level of productive activities, which will enable the intellectual and emotional power of students that are required for the acquisition of new knowledge easier and more engaging. Therefore, it should be avoided to prepare students to handle the new course content is reduced to long-term reproductive repetition, which is very common in the classroom.

Preparing students for the introduction of new course content outside the classroom

In addition to preparing students for the introduction of new teaching facilities in the regular classes, for success in the implementation of learning tasks it is necessary to prepare students outside class. From the history of pedagogy and didactics, it is known that the representatives of the labor school students preparing for the introduction of new teaching facilities outside school placed great importance. In this regard, teachers - recommended that the students held so arrangements whose essence consisted in the fact that the teacher the day before, and in some cases several days in advance, informed the students about the new topic.

The students' task was to discuss the announced topic read something, to carry out basic practical preparations to collect particulate material (image, text, natural). So, in addition to teachers and students are to some extent prepared to work on the processing of new topics. Such an attitude towards this problem, a logical consequence of the general efforts at that time, especially if we know that the basic rule of the working of the school was to train students to work with. Accordingly, efforts were made to students are the busier, not only in school, but also outside of it. It has influenced the content of homework and students, largely related to the preparation of materials for processing new teaching topic, which is certainly affirmative because the ability to work and realized work. However, frontal and radical critique of the work of the school, in this region, which was especially pronounced in the period after the Second World War and who was ideologically oriented, suppressed all what it was good, as was the effect that in younger generations are developed work habits, which further caused by inability of the performance of a work activity, failure at work, lack of work culture and so on. The reforms in the field of teaching and education followed a period of transition, not adequately take into account the students preparing for the introduction of new course content outside the classroom. On the contrary. Solutions that were once offered as the perfect model to overcome the unfavorable situation in this area, did not give the expected results. If we want our students in school and out of work, if we have developed a work culture and work ability, they should be put in a situation that really works, and not to look at how others are doing and verbal learning how it should be done. In an effort to achieve that goal, helping students prepare for the introduction of new course content outside the classroom should be given special importance and attention directed to the realization of requests that

can be in a position to overcome problems, which obviously exist.

Preparing students for the introduction of new course content outside the classroom has a positive motivational and psychological effect because it is assumed that students are expected with great interest the moment being processed when the teacher will use the information that students from a variety of sources independently gathered, preparing for class. In addition, knowing what will work in the classroom, students are exempt from testing fear and uncertainty whether there will be a lecture or examination, which had a positive effect on their active participation in the learning process. However, to work to prepare students to handle the new course content outside the classroom was proclaimed at the request and the expected results, it is necessary that teachers and students are able to do so. Qualifications of teachers involves pedagogical - psychological and didactic- methodological training, which still need to be operational training students to work independently and self-study. Independent work of students is a planned, purposeful organized activity in which students according to their mental and physical abilities, independently, without direct involvement of teachers working on solving problems that are pre-planned, designed and set by the teacher (Krulj, Arsic, 2012, p. 364). Tasks in addition to their objectives, content and functions are a means to mobilize students, conscious and permanent adoption of scientific and theoretical knowledge and practical experience, encouraging internal forces students, the expression of subjective power of every student and improving methods of independent cognitive activity. In this way, the individual work of students at the same time emerging as a means of objective and learning outcomes. Independent work of students in the classroom is a dialectical relationship and interdependent relationship with the learning process. From this fact stems our

commitment to independent work of students in the realization of the tasks of teaching and self-study, treated in terms of the dialectical unity and mutual interdependence. Only in this way, it is possible to examine their relationship and explain the essence and importance of play in the process of realization of the task, but also in educational work at all.

Activities that are aimed at ensuring that work independently and be self-study in order to advance the students' preparation for the introduction of new course content outside the classroom, involve the engagement of the whole psychological structure of the personality of students. This means that it is here necessary to engage the intellectual, emotional and volitional structure of students, including the need for appropriate conditions in which they will be able to rationally and effectively develop and use their mental and physical, cognitive and other resources and capabilities. Conditions on which the success of individual work and learning outside the regular curricular activities at school include:

- scheduling and planning of working time,
- editing workspace (s) for learning
- good knowledge of the methods and techniques of teaching,
- ability to directly use sources of information,
- capacity for independent conclusions,
- capacity for self - evaluation of the results and
- ability to create working drawings, or taking notes from reading text (Čanović, 2002, pp. 178-180).

The most common mistake in the preparation of students processing new course content

At the present stage of the development of ideas about teaching and

its tasks crystallized are numerous ways of preparing students for the introduction of new teaching facilities. Nevertheless, in teaching practice, the problems that do not allow students to prepare for the introduction of new teaching facilities to be effective and in order to advance the implementation of the educational process as a whole. One of the most common defects in the series refers to the fact that the teacher is constantly applied the same method of preparation, ie. teaching hour always starts the same way, and to repeat previously processed material, which causes the monotony that negatively affects the students and causing a repulsive attitude towards teaching. From this, it follows other error in preparing students for the introduction of new teaching facilities, and refers to the methodical way of performing. If the content of the preparation of repetition and reproduction, it is commonly applied method of conversation that is not conducive to creating a positive work atmosphere because the conversation is mostly reduced to a series of "chopped" questions and answers (catechetic conversation) that do not provide the necessary orientation where the wants to go. The next error in the preparation refers to the functionality of the content of the preparation because it often happens that on to the main part of the class dysfunctional. Preparation should be functional in comparison to what followed after him and what his goal is, not mechanical and formalistic just to fill the teaching time. Preparation of the terms of its content and manner did not contribute to the creation of an active attitude of students towards the main part of the class is non-functional, and therefore the loss of working time. In addition to the foregoing, errors in preparing students for the introduction of new teaching facilities may occur due to the efforts to standardize the preparation time, leading to its prolongation, even when there is no real need. Analyses of many teaching hours show that in this domain, still retained the

traditional notion that preparation, ie. introduction to the main part of the class should take 5 - 10 minutes. In this regard, it should be noted that the request should get rid of misconceptions about coffee was an effort of standardizing the time of preparing students for the introduction of new teaching facilities. Any attempt to make this part of the work to continue as a standardized basically wrong because its duration depends on a number of factors such as, for example, the content's introduction embodiment, the weight of work behind it follows, subject, age of students, teachers hour of day, day of the week, weather conditions, fatigue, etc. students.

* * * * *

Using different ways of preparing students to handle the new curriculum content in the classroom and outside the classroom, when they gradually developed an awareness that all work necessarily precedes thorough preparation and cannot be successfully solved a major problem if it is not carried out the necessary preparations. Permanent preparing students acquire the ability of organized approach to work tasks, both in terms of content and considering the manner of preparation.

Preparing students for the processing of the content requires the teacher to during their preparation for teaching thinking of suitable content and manner of preparation of students in and out of school. Homework is one way that can serve the purpose of preparing students for successful introduction of new teaching material, but not the only one. On the contrary. However, in order to work in this very important part of the organization and realization of the work was in accordance with the declared requirements and expectations of modern society, it is

necessary, first, to get rid of some traditional conceptions and work to create conditions for the awareness of the need for working culture and the ability to work independently and self-study.

REFERENCE

- Bakovljević, M. (1973). Osnovni nedostaci praktične realizacije zahteva za misaonu aktivizaciju učenika u saznavnom procesu. Beograd: *Naučna knjiga*
- Bakovljević, M. (1983). Suština i pretpostavke misaone aktivizacije učenika. Beograd: *Prosveta*
- Čanović, S. (2002). Problemi savremene nastave, Leposavić: *Učiteljski fakultet*
- Gruzdjev, P. N. (1950). Pedagogika. Beograd: *Zavod za izdavanje udžbenika NRS*
- Janjušević, M., (1967). Didaktika, Beograd: *Vuk Karadžić*
- Komenski, J. A. (1954). Velika didaktika. Beograd: *Savez pedagoških društava Jugoslavije*
- Krnetić, Lj. (1979). *Pedagogija*, Beograd: Naučna knjiga
- Krnetić, Lj. i sar. (1967). *Pedagogija*, Zagreb: Matica Hrvatska
- Krulić, R. S., Arsić, Z. (2012). Didaktičke pretpostavke i uslovi za uspešno osposobljavanje učenika za samostalni rad i samoučenje, *Nastava i učenje-ciljevi, standardi, ishodi - Zbornih radova Učiteljskog fakulteta*, Užice: Učiteljski fakultet
- Mladenović, V. (1936). Opšta pedagogika, Beograd: *Geca Kon*
- Pataki S. (1952). Opća pedagogija, Zagreb: *PKZ*
- Pataki S., (1967). Opća pedagogija, Zagreb: *Naučna knjiga*
- Poljak, V. (1970). Didaktika, Zagreb: *Školska knjiga*
- Poljak, V. (1975). Obrada nastavnih sadržaja i stjecanje znanja, Zagreb: *Školska knjiga*
- Prodanović, T., Ničković, R. (1974). Didaktika, Beograd: *Zavod za udžbenike i nastavna sredstva*
- Šimleša, P. (1978). Pedagogija, Zagreb, *Matica Hrvatska*
- Teodosić, R. i sar. (1968). Pedagogika, Sarajevo: *Zavod za izdavanje udžbenik*
- Žlebnik, L. (1974). *Opća povijest pedagogije*, PKZ: Zagreb

EXTENSION OF THE FUZZY C MEANS CLUSTERING ALGORITHM TO FIT WITH THE COMPOSITE GRAPH MODEL FOR WEB DOCUMENT REPRESENTATION

Mr. Kaushik K. Phukon MCA, Department of Computer Science, Gauhati University,
Guwahati- 781014, Assam, India.

E-mail: kaushikphukon@gmail.com

Prof. Hemanta K. Baruah, Vice Chancellor, Bodoland University, Kokrajhar-783370, Assam, India.

E-mail: hemanta_bh@yahoo.com

Abstract: Clustering techniques are mostly unsupervised methods that can be used to organize data into groups based on similarities among the individual data items. Fuzzy c-means (FCM) clustering is one of well known unsupervised clustering techniques, which can also be used for unsupervised web document clustering. In this chapter we will introduce a modified method of clustering where the data to be clustered will be represented by graphs instead of vectors or other models. Specifically, we will extend the classical FCM clustering algorithm to work with graphs that represent web documents (Phukon, K. K. (2012), Zadeh, L. A. (1965). Dunn, J. C.(1974)). We wish to use graphs because they can allow us to retain information which is often discarded in simpler models.

Keywords: Graph, Web Document, Hard Partition, Fuzzy Partition, Fuzzy C- Means.

1. INTRODUCTION

Fuzzy clustering is well-known not only in fuzzy community, but also in the related fields of data analysis, neural networks, and other areas in computational intelligence. The FCM algorithm, proposed by Dunn, J. C. (1974) and extended by Bezdek, J. C. (1981), Cannon, R. L., Dave, J. V., Bezdek, J. C. (1986) can be applied if the objects of interest are represented as points in a multi-dimensional space. FCM relates the concept of object similarity to spatial closeness and finds cluster centers as prototypes. Several examples of application of FCM to real clustering problems have proved the good characteristics of this algorithm with respect to stability and partition quality.

In general, cluster analysis refers to a broad spectrum of methods which try to subdivide a data set X into c subsets (clus-

ters) which are pair wise disjoint, all nonempty, and reproduce X via union. The clusters then are termed a hard (i.e., non-fuzzy) c-partition of X. A significant fact about this type of algorithm is the defect in the underlying axiomatic model that each point in X is unequivocally grouped with other members of its cluster, and thus bears no apparent similarity to other members of X. One such manner to characterize an individual point's similarity to all the clusters was introduced in 1965 by Zadeh. The key to Zadeh's idea (Zadeh, L. A. (1965)) is to represent the similarity a point shares with each cluster with a function (termed the membership function) whose values (called memberships) are between zero and one. Baruah (2011) has defined the membership function of a normal fuzzy number $N=[\alpha, \beta, \gamma]$ as

$$\mu_N(x) = \begin{cases} \Phi_1(x) & \text{if } \alpha \leq x \leq \beta, \\ \Phi_2(x) & \text{if } \beta \leq x \leq \gamma, \\ 0 & \text{otherwise.} \end{cases}$$

(Eq: 1.1)

Where $\Phi_1(x)$ and $(1-\Phi_2(x))$ are two independent distribution functions defined in $[\alpha, \beta]$ and $[\beta, \gamma]$ respectively.

Clustering techniques are generally applied to data that are quantitative (numerical), qualitative (categorical), or a mixture of both. But in this chapter we are going to put forward a means for clustering graphical objects with the help of FCM algorithm. Let us start with quantitative data where each observation may consists

of n measured variables, grouped into an n -dimensional column vector $\mathbf{Z}_k = [z_{1k}, \dots, z_{nk}]^T$, $\mathbf{Z}_k \in \mathbb{R}^n$. A set of N observations is denoted by $\mathbf{Z} = \{\mathbf{z}_k / k = 1, 2, \dots, N\}$, and is represented as an $n \times N$ matrix:

$$\mathbf{Z} = \begin{bmatrix} Z_{11} & Z_{12} & \dots & \dots & \dots & Z_{1N} \\ Z_{21} & Z_{22} & \dots & \dots & \dots & Z_{2N} \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\ \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\ Z_{n1} & Z_{n2} & \dots & \dots & \dots & Z_{nN} \end{bmatrix}$$

In the pattern-recognition terminology, the columns of this matrix are called patterns or objects, the rows are called the features or attributes, and \mathbf{Z} is called the pattern or data matrix. The meaning of the columns and rows of \mathbf{Z} depends on the context.

2. HARD AND FUZZY PARTITIONS

Hard clustering methods are based on classical set theory, and require that an object either does or does not belong to a cluster. Hard clustering means partitioning the data into a specified number of mutually exclusive subsets. Fuzzy clustering methods, however, allow the objects to belong to several clusters simultaneously, with different degrees of membership. In many situations, fuzzy clustering is more natural than hard clustering. Objects on the boundaries between several classes are not forced to fully belong to one of the classes, but rather are assigned membership degrees between 0 and 1 indicating their partial membership.

2.1. Hard Partition

The objective of clustering is to partition the data set \mathbf{Z} into c clusters (groups, classes). Using classical sets, a hard partition of \mathbf{Z} can be defined as a family of subsets $\{A_i | 1 \leq i \leq c\} \subset P(\mathbf{Z})$, ($P(\mathbf{Z})$ is the pow-

er set of \mathbf{Z}) with the following properties (Bezdek, 1981):

$$\bigcup_{i=1}^c A_i = \mathbf{Z}$$

$$A_i \cap A_j = \emptyset, 1 \leq i \neq j \leq c$$

$$\emptyset \subset A_i \subset \mathbf{Z}, 1 \leq i \leq c$$

(Eq: 2.1.1, 2.1.2 & 2.1.3 respectively.)

Equation (2.1.1) means that the union subsets A_i contain all the data. The subsets must be disjoint, as stated by (2.1.2), and none of them is empty nor contains all the data in \mathbf{Z} (2.1.3). In terms of membership (characteristic) functions, a partition can be conveniently represented by the partition matrix $\mathbf{U} = [\mu_{ik}]_{c \times N}$. The i th row of this matrix contains values of the membership function μ_i of the i th subset A_i of \mathbf{Z} . It follows from the above equations that the elements of \mathbf{U} must satisfy the following conditions:

$$\mu_{ik} \in \{0, 1\}, 1 \leq i \leq c, 1 \leq k \leq N,$$

$$\sum_{i=1}^c \mu_{ik} = 1, 1 \leq k \leq N,$$

$$0 < \sum_{k=1}^N \mu_{ik} < N, 1 \leq i \leq c.$$

(Eq: 2.2.1, 2.2.2 & 2.2.3 respectively.)

The space of all possible hard partition matrices for \mathbf{Z} , called the hard partitioning space (Bezdek, 1981), is thus defined by:

$$M_{hc} = \left\{ \mathbf{U} \in \mathbb{R}^{c \times N} \mid \mu_{ik} \in \{0, 1\}, \forall i, k; 0 < \sum_{k=1}^N \mu_{ik} < N, \forall i \right\}$$

(Eq: 2.3)

Example 1.1 Hard partition: Let us illustrate the concept of hard partition by a

simple example. Consider a data set $\mathbf{Z} = \{\mathbf{z}_1, \mathbf{z}_2, \dots, \mathbf{z}_{10}\}$, consisting of 10 web pages each represented by graphs. Suppose we obtained the figure below after calculating the distance [2,3] between each and every pair of graphs by using the formula:

$$dist_{MCS}(\mathbf{z}_i, \mathbf{z}_j) = 1 - \left(\frac{\sum_{SOM} d^{\pm}(MCS(\mathbf{z}_i, \mathbf{z}_j))}{\max(\sum d^{\pm}(\mathbf{z}_i), (\sum d^{\pm}(\mathbf{z}_j)))} \right) \text{ where } i, j = 1, 2, \dots, 10$$

(Eq: 2.4)

as shown in Figure below:

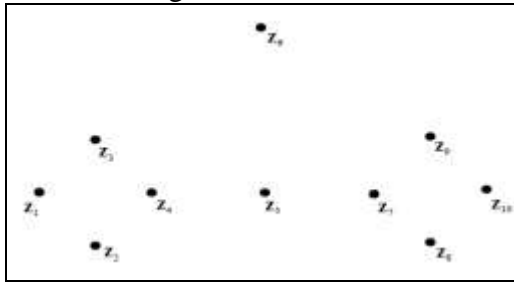


Figure 1.1. A dataset in \mathbb{R}^2

A visual inspection of this data may suggest two well-separated clusters (data points \mathbf{z}_1 to \mathbf{z}_4 and \mathbf{z}_7 to \mathbf{z}_{10} respectively), one point in between the two clusters (\mathbf{z}_5), and an "outlier" \mathbf{z}_6 . One particular partition $\mathbf{U} \in M_{hc}$ of the data into two subsets (out of the 2^{10} possible hard partitions) is

$$\mathbf{U} = \begin{bmatrix} 1 & 1 & 1 & 1 & 1 & 1 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 & 1 & 1 \end{bmatrix}$$

The first row of \mathbf{U} defines point-wise the characteristic function for the first subset of \mathbf{Z} , A_1 , and the second row defines the characteristic function of the second subset of \mathbf{Z} , A_2 . Each sample must be assigned exclusively to one subset (cluster) of the partition. In this case, both the boundary point \mathbf{z}_5 and the outlier \mathbf{z}_6 have been assigned to A_1 . It is clear that a hard partitioning may not give a realistic picture of the underlying data. Boundary data points may represent patterns with a mixture of properties of data in A_1 and A_2 , and therefore cannot be fully assigned to either of these classes, or do they constitute a

separate class. This shortcoming can be alleviated by using fuzzy partitions as shown in the following sections.

2.2. Fuzzy Partition

Generalization of the hard partition to the fuzzy case follows directly by allowing μ_{ik} to attain real values in $[0, 1]$. Conditions for a fuzzy partition matrix, analogous to (2.2) are given by (Ruspini, 1970):

$$\mu_{ik} \in [0, 1], 1 \leq i \leq c, 1 \leq k \leq N$$

$$\sum_{i=1}^c \mu_{ik} = 1, 1 \leq k \leq N$$

$$0 < \sum_{i=1}^c \mu_{ik} = 1 < N, 1 \leq i \leq c$$

(Eq: 2.5.1, 2.5.2 & 2.5.3 respectively.)

The i th row of the fuzzy partition matrix \mathbf{U} contains values of the i th membership function of the fuzzy subset A_i of \mathbf{Z} . Equation (2.5.2) constrains the sum of each column to 1, and thus the total membership of each \mathbf{z}_k in \mathbf{Z} equals one. The fuzzy partitioning space for \mathbf{Z} is the set

$$M_{fc} = \left\{ \mathbf{U} \in \mathbb{R}^{c \times N} \mid \mu_{ik} \in [0, 1], \forall i, k; 0 < \sum_{k=1}^N \mu_{ik} < N, \forall i \right\}$$

(Eq. 2.6)

Example 1.2: Fuzzy partition: Let us consider the data set from Example 1.1. One of the infinitely many fuzzy partitions in \mathbf{Z} is:

$$\mathbf{U} = \begin{bmatrix} 1.0 & 1.0 & 1.0 & 0.8 & 0.5 & 0.5 & 0.2 & 0.0 & 0.0 & 0.0 \\ 0.0 & 0.0 & 0.0 & 0.2 & 0.5 & 0.5 & 0.8 & 1.0 & 1.0 & 1.0 \end{bmatrix}$$

The boundary point \mathbf{z}_5 has now a membership degree of 0.5 in both classes, which correctly reflects its position in the middle between the two clusters. Note, however, that the outlier \mathbf{z}_6 has the same pair of membership degrees, even though it is further from the two clusters, and thus can be considered less typical of both A_1

and A_2 than z_5 . This is because condition (2.5.2) requires that the sum of memberships of each point equals one. It can be, of course, argued that three clusters are more appropriate in this example than two. In general, however, it is difficult to detect outliers and assign them to extra clusters.

3. FUZZY C-MEANS CLUSTERING

Most analytical fuzzy clustering algorithms (and also all the algorithms presented in this chapter) are based on optimization of the basic c -means objective function, or some modification of it. Hence we start our discussion with presenting the FCM functional.

3.1 The Fuzzy c-Means Functional

A large family of fuzzy clustering algorithms is based on minimization of the fuzzy c -means functional formulated as (Dunn, 1974; Bezdek, 1981):

$$J(\mathbf{Z}; \mathbf{U}, \mathbf{V}) = \sum_{i=1}^c \sum_{k=1}^N (\mu_{ik})^m \|z_k - v_i\|_A^2$$

Where

$$\mathbf{U} = [\mu_{ik}] \in M_{fc}$$

is a fuzzy partition matrix of \mathbf{Z} ,

$$\mathbf{V} = [v_1, v_2, \dots, v_c], v_i \in \mathbb{R}^n$$

is a vector of cluster prototypes (centers), which have to be determined,

$$D_{ikA}^2 = \|z_k - v_i\|_A^2 = (z_k - v_i)^T A (z_k - v_i)$$

is a squared inner product distance norm where \mathbf{A} is a norm-inducing matrix, and

$$m \in [1, \infty)$$

(Eq: 3.1.1, 3.1.2, 3.1.3, 3.1.4 & 3.1.5 respectively.)

is a parameter which determines the fuzziness of the resulting clusters. The value of the cost function (8.1) can be seen as a measure of the total variance of z_k from v_i .

3.2. The Fuzzy c-Means Algorithm

The minimization of the c -means functional (3.1.1) represents a nonlinear optimization problem that can be solved by using a variety of methods, including iterative minimization, simulated annealing or genetic algorithms. The most popular method is a simple Picard iteration through the first-order conditions for stationary points of (3.1.1), known as the FCM algorithm.

The stationary points of the objective function (3.1.1) can be found by adjoining the constraint (2.5.2) to J by means of Lagrange multipliers:

$$\begin{aligned} \bar{J}(\mathbf{Z}; \mathbf{U}, \mathbf{V}, \boldsymbol{\lambda}) = \\ \sum_{i=1}^c \sum_{k=1}^N (\mu_{ik})^m D_{ikA}^2 + \sum_{k=1}^N \lambda_k \left[\sum_{i=1}^c \mu_{ik} - 1 \right] \end{aligned}$$

(Eq: 3.2)

and by setting the gradients of \bar{J} with respect to \mathbf{U}, \mathbf{V} and $\boldsymbol{\lambda}$ to zero. It can be shown that $D_{ikA}^2 > 0, \forall i, k$ and $m > 1$, then $(\mathbf{U}, \mathbf{V}) \in M_{fc} \times \mathbb{R}^{n \times c}$ may minimize if and only if

$$\mu_{ik} = \frac{1}{\sum_{j=1}^c (D_{ikA} / D_{jkA})^{2/(m-1)}}, 1 \leq i \leq c, 1 \leq k \leq N,$$

$$\text{and } V_i = \frac{\sum_{k=1}^N (\mu_{ik})^m z_k}{\sum_{k=1}^N (\mu_{ik})^m}; 1 \leq i \leq c.$$

(Eq: 3.3.1 & 3.3.2)

This solution also satisfies the remaining constraints (2.5.1) and (2.5.3). Equations (3.3) are first-order necessary conditions for stationary points of the functional (3.1.1). The FCM (Algorithm 1.1) iterates through (3.3.1) and (3.3.2). Sufficiency of (3.3) and the convergence of the FCM algorithm is proven in (Bezdek, 1980). It is to be noted that (3.3.2) gives \mathbf{v}_i as the weighted mean of the data items that belong to a cluster, where the weights are the membership degrees. That is why the algorithm is called “c-means”.

Algorithm 1.1 Fuzzy c-means (FCM). Given the data set \mathbf{Z} , choose the number of clusters $1 < c < N$, the weighting exponent $m > 1$, the termination tolerance $\epsilon > 0$ and the norm-inducing matrix \mathbf{A} . Initialize the partition matrix randomly, such that $U^{(0)} \in M_{fc}$.

Repeat for $l = 1, 2, \dots$

Step 1: Compute the cluster prototypes (means):

$$v_i^{(l)} = \frac{\sum_{k=1}^N (\mu_{ik}^{(l-1)})^m z_k}{\sum_{k=1}^N (\mu_{ik}^{(l-1)})^m}; 1 \leq i \leq c.$$

Step 2: Compute the distances:

$$D_{ikA}^2 = (z_k - v_i^{(l)})^T A (z_k - v_i^{(l)}), 1 \leq i \leq c, 1 \leq k \leq N.$$

Step 3: Update the partition matrix: for $1 \leq k \leq N$

if $D_{ikA} > 0$ for all $i = 1, 2, \dots, c$

$$\mu_{ik}^{(l)} = \frac{1}{\sum_{j=1}^c (D_{ikA} / D_{jkA})^{2/(m-1)}},$$

otherwise,

$$\mu_{ik}^{(l)} = 0 \text{ if } D_{ikA} = 0 \text{ and } \mu_{ik}^{(l)} \in [0, 1] \text{ with}$$

$$\sum_{i=1}^c \mu_{ik}^{(l)} = 1.$$

$$\text{until } \|U^{(l)} - U^{(l-1)}\| < \epsilon$$

3.3. Parameters of the FCM Algorithm

Before using the FCM algorithm, the following parameters must be specified: the number of clusters, c , the ‘fuzziness’ exponent, m , the termination tolerance, ϵ , and the norm-inducing matrix, \mathbf{A} . Moreover, the fuzzy partition matrix, \mathbf{U} , must be initialized.

3.3.1. Number of Clusters

The number of clusters c is the most important parameter, in the sense that the remaining parameters have less influence on the resulting partition. When clustering real data without any a priori information about the structures in the data, one usually has to make assumptions about the number of underlying clusters. The chosen clustering algorithm then searches for c clusters, regardless of whether they are really present in the data or not.

3.3.2. Fuzziness Parameter

The weighting exponent m is a rather important parameter as well, because it significantly influences the fuzziness of the resulting partition. As m approaches one from above, the partition becomes hard ($\mu_{ik} \in \{0, 1\}$) and \mathbf{v}_i are ordinary means of the clusters. As $m \rightarrow \infty$, the partition becomes completely fuzzy ($\mu_{ik} = 1/c$) and the cluster means are all equal to the mean of \mathbf{Z} . These limit properties of (8) are independent of the optimization method used

(Pal and Bezdek, 1995). Usually, $m = 2$ is initially chosen.

3.3.3. Termination Criterion

The FCM algorithm stops iterating when the norm of the difference between \mathbf{U} in two successive iterations is smaller than the termination parameter ε . For the maximum norm $\max_{ik}(|\mu_{ik}^l - \mu_{ik}^{(l-1)}|)$, the usual choice is $\varepsilon = 0.001$, even though $\varepsilon = 0.01$ works well in most cases, while drastically reducing the computing times.

3.3.4. Norm-Inducing Matrix

The shape of the clusters is determined by the choice of the matrix \mathbf{A} in the distance measure (3.1.4). A common choice is $\mathbf{A} = \mathbf{I}$, which gives the standard Euclidean norm:

$$D_{ik}^2 = (z_k - v_i)^T (z_k - v_i)$$

3.3.5 Initial Partition Matrix

The partition matrix is usually initialized at random, such that $\mathbf{U} \in M_{fc}$. A simple approach to obtain such \mathbf{U} is to initialize the cluster centers v_i at random and compute the corresponding \mathbf{U} by (10.1) (i.e., by using the third step of the FCM algorithm).

4. THE MODIFIED FUZZY C MEANS ALGORITHM TO FIT WITH GRAPHS

The main challenge with adapting fuzzy c-means for graphs lies in creating a

method of computing the cluster representatives.

Let us consider a graphical dataset

$$\mathbf{Z} = (z_k | k=1, 2, \dots, N)$$

Under fuzzy c-means the cluster centers are computed with a weighted averaging that takes into account the membership values of each data item. Thus the graph median cannot be directly used. We propose the following method of determining cluster centers for graph-based data. For each cluster j , use deterministic sampling to compute the number of copies of each graph i to use, $e_j(i)$, which is defined as:

$$e_j(i) = \left[n \frac{a_{ij}}{\sum_{\forall i} a_{ij}} \right]$$

Here n is the total number of items in the data set. We then create a set of graphs consisting of $e_j(i)$ copies of graph i and compute the median graph of this set to be the representative of cluster j . So the new algorithm becomes:

Repeat for $l = 1, 2, \dots$

Step 1: Compute the cluster prototypes (representative median of a set of graphs):

$$g_i^{(l)} = \arg \min_{\forall s \in S} \left(\frac{1}{|S|} \sum_{y=1}^{|S|} \text{dist}(s, G_y) \right)$$

where S is the set of graphs and $g \in S$ ($S = \{G_1, G_2, \dots, G_n\}$) such that g has the lowest average distance to all elements in S [3]

Step 2: Compute the distances:

$$D_{ikA}^2 = (z_k - g_i^{(l)})^T A (z_k - g_i^{(l)}), 1 \leq i \leq c, 1 \leq k \leq N.$$

where $(z_k - g_i^l)$ is representing the distance between the graph z_k and the cluster representative g_i^l , i.e. $dist_{MCS}(z_k, g_i^l)$ (refer eq. 2.4).

Step 3: Update the partition matrix:

for $1 \leq k \leq N$

if $D_{ikA} > 0$ for all $i = 1, 2, \dots, c$

$$\mu_{ik}^{(l)} = \frac{1}{\sum_{j=1}^c (D_{ikA} / D_{jkA})^{2/(m-1)}},$$

otherwise,

$$\mu_{ik}^{(l)} = 0 \text{ if } D_{ikA} = 0 \text{ and}$$

$$\mu_{ik}^{(l)} \in [0,1] \text{ with } \sum_{i=1}^c \mu_{ik}^{(l)} = 1.$$

until $\|U^{(l)} - U^{(l-1)}\| < \varepsilon$

4. CONCLUSION

In this article, we suggested a clustering method for graph based data with special reference to graphs representing web documents. The basic idea is the calculation of cluster center in case of graphical objects. We have modified the step 1 and 2 of the original FCM algorithm which will arm it to handle graph based data. We have made these changes without changing the fundamental concepts of the FCM algorithm. This method will enhance the efficiency and effectiveness of the FCM algorithm, as the graphical objects will boost the clustering method with abundant information [6, 7, 8].

REFERENCES

- Baruah, H. K. (2011). In Search of the Root of Fuzziness: The MeasureTheoretic Meaning of Partial Presence. *Annals of Fuzzy Mathematics and Informatics*, 2 (1),57- 68.
- Baruah, H. K. (2011). The Theory of Fuzzy Sets: Beliefs and Realities. *International, Journal of*

Energy Information and Communications, 2 (2), 1-21.

Bezdek, J. C. (1981). Pattern Recognition with Fuzzy Objective Function Algorithms. *Plenum Press*.

Cannon, R. L., Dave, J. V., Bezdek, J. C. (1986). Efficient Implementation of the Fuzzy C-Means Clustering Algorithms. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 8 (2), 248-255.

Dunn, J. C. (1974). A Fuzzy Relative of The Isodata Processand its Use in Detecting Compact Well Separated Clusters. *Journal of Cybernetics*, 3 (3), 32-57.

Phukon, K. K. (2012). A Composite Graph Model for Web Document and the MCS Technique. *International Journal of Multimedia and Ubiquitous Engineering*, 7 (1), 45-52.

Phukon, K. K. (2012). The Composite Graph Model for Web Document and its Impacts on Graph Distance Measurement. *International Journal of Energy Information and Communications*, 3 (2), 53-60.

Phukon, K. K. (2012). Maximum Common Subgraph and Median Graph Computation from Graph Representations of Web Documents Using Backtracking Search. *International Journal of Advanced Science and Technology*, 51, 67-80.

Zadeh, L. A. (1965). *Information and Control*, 338-353.

AUTHOR GUIDELINES

The requirement for the submission of work is that the work described has not been published before; that it is not under consideration for publication anywhere else; that its publication has been approved by all co-authors.

When considering submitting an article, the Editors have provided the following criteria to assist authors with preparing their submissions:

- **ORIGINALITY** – The author should ensure that the manuscript has not been previously published nor is being considered by another journal.
- **PLAGIARISM** - Content should be properly referenced. Be sure to check paper for possible accidental plagiarism. Some free plagiarism checker websites includes: www.grammarly.com, www.plagtracker.com and www.duplichecker.com
- **WRITING** – Please write in good English (American or British usage is accepted, but not a mixture of these). For non-native English speakers, and perhaps even for some native English speakers, the grammar, spelling, usage, and punctuation of the text are very important for an effective presentation. Hence, manuscripts are expected to be written in a clear, cogent, and readily understandable by an international readership.

ONLINE SUBMISSION

Manuscripts must submit online. Electronic submission reduces the editorial processing and reviewing times and reduces the time of submission to publication.

STRUCTURE OF MANUSCRIPTS

TITLE PAGE

THE TITLE PAGE SHOULD INCLUDE:

- The name(s) of the author(s)
- A concise and informative title
- The affiliation(s) and address(es) of the author(s)
- The e-mail address of the corresponding author

ABSTRACT

- Abstract should contain a maximum of 250 words. The abstracts should avoid any abbreviations and mathematical formulas.
- Keywords should include 4-6 key words.

TEXT FORMATTING

- Manuscripts should be submitted in Word, A4, Times New Roman, 10-point for abstract and keywords and 12-points for text.
- A complete manuscript falls need to be maximum 8,000 words excluding references, tables, and figures.
- For numerations of pages use the automatic page numbering function.
- In text for emphasis use italics.

- The use of abbreviations should be avoided. If using the first Abbreviations should be used throughout the text the same.
- For headings use maximum three levels.
- Footnotes should be avoided.
- Acknowledgments should be placed in a separate section before the reference list.

INTRODUCTION – State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

MATERIALS AND METHODS – Provide sufficient detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should be described.

RESULTS – Results should be clear and concise.

DISCUSSIONS – This should explore the significance of the results of the work, not repeat them. A combined RESULTS AND DISCUSSION section is often appropriate. Avoid extensive citations and discussion of published literature.

CONCLUSIONS - The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a DISCUSSION or RESULTS AND DISCUSSION section.

ACKNOWLEDGEMENTS - Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

REFERENCE STYLE – All manuscripts should be formatted using the American Psychological Association (APA) citation style, which is used primarily in the social sciences. For additional examples, consult the most recent edition of the Publication Manual of the American Psychological Association.

REFERENCES

CITATION

➤ Citations of books, book chapters, or journal articles in the text or in footnotes should be given in a shortened form: author name(s), year and page number or paragraph.

REFERENCE LIST

➤ Reference list should only include works that have been published or accepted for publication. Unpublished works should be only mentioned in the text. Reference list should be with the bibliographic details of the cited books, book chapters, or journal articles.

➤ Reference list entries should be alphabetized by the last names of the first author of each work.

CITATION OF BOOKS

➤ Author's surname Initial(s) of the given name(s) (Year of Publication) Title of Book, Volume number (if relevant), edition (if relevant). Publisher, Place of Publication

CITATION OF ARTICLES

➤ Author's surname Initial(s) of the given name(s) (Year of publication) Title of article. Journal Volume number (and issue number if issues within a volume number are not consecutively paginated): Number of first and last page of article

CITATION OF WEBSITES

➤ Author's surname Initial(s) of the given name(s) (if known) title, type of document (if relevant), date of issue (if available), web address and date of access, if the document or the website may be subject to change.

TABLES

- All tables are to be numbered using Arabic numerals.
- Tables should always be cited in text in consecutive numerical order.
- For each table, please supply a table caption (title) explaining the components of the table.
- Identify any previously published material by giving the original source in the form of a reference at the end of the table caption.
- Footnotes to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data) and included beneath the table body.

For the best quality final product, it is highly recommended that you submit all of your artwork – photographs, line drawings, etc. – in an electronic format.

ELECTRONIC FIGURE SUBMISSION

Supply all figures electronically.

- Indicate what graphics program was used to create the artwork.
- For vector graphics, the preferred format is EPS; for halftones, please use TIFF format. MS Office files are also acceptable.
- Vector graphics containing fonts must have the fonts embedded in the files.
- Name your figure files with "Fig" and the figure number, e.g., Fig1.eps.
- Scanned line drawings and line drawings in bitmap format should have a minimum resolution of 1200 dpi.
- All figures are to be numbered using Arabic numerals.
- Figure captions begin with the term Fig. in bold type, followed by the figure number, also in bold type.
- If you include figures that have already been published elsewhere, you must obtain permission from the copyright owner(s) for both the print and online format.

SUBMISSION PREPARATION CHECKLIST

As part of the submission process, authors are required to check off their submission's compliance with all of the following items, and submissions may be returned to authors that do not adhere to these guidelines.

1. The submission has not been previously published, nor is it before another journal for consideration (or an explanation has been provided in Comments to the Editor).
2. The submission file is in OpenOffice, Microsoft Word, RTF, or WordPerfect document file format.
3. Where available, URLs for the references have been provided.
4. The text is single-spaced; uses a 12-point font; employs italics, rather than underlining (except with URL addresses); and all illustrations, figures, and tables are placed within the text at the appropriate points, rather than at the end.
5. The text adheres to the stylistic and bibliographic requirements outlined in the Author Guidelines, which is found in About the Journal.
6. If submitting to a peer-reviewed section of the journal, the instructions in Ensuring a Blind Review have been followed.
7. Have checked paper for possible accidental plagiarism. Some free plagiarism checker websites includes: www.grammarly.com, www.plagtracker.com, www.ithenticate.com or www.duplichecker.com.

COPYRIGHT NOTICE

Submission of an original manuscript to the Journal will be taken to mean that it represents original work not previously published, that is not being considered elsewhere for publication; that the author is willing to assign copyright to the journal as per a contract that will be sent to the author just prior to publication and, if accepted for publication, it will be published in print and online and it will not be published elsewhere in the same form, for commercial purposes, in any language, without the consent of the publisher.

PRIVACY STATEMENT

The names and email addresses entered in this journal site will be used exclusively for the stated purposes of this journal and will not be made available for any other purpose or to any other party.

PARTNERS AND SPONSORS

Southern Federal University (Russia, Rostov-on-Don)
Education and Applied Psychology Faculty
Psychology Faculty
Rostov Institute of Further Training and Retraining of Educators (Russia, Rostov-on-Don)
Association for the Development of Science, Engineering and Education (Vranje, Serbia)
Charles University (Czech Republic)
Preschool Teachers' Training College in Kikinda (Serbia)

DEAR COLLEAGUES!

**We invite you to participate in the V International
Scientific Conference**

**"INNOVATIVE POTENTIAL OF EDUCATIONAL SPACE SUBJECTS IN THE
CONDITIONS OF EDUCATION MODERNIZATION "**
(November 2014, Russia, Rostov-on-Don)

The focus of work at the conference in 2014:

| № | Scientific field |
|----------|--|
| 1 | Methodological foundations of innovative activity in education |
| 2 | Design and formation of educational environment in the context of education modernization |
| 3 | Psychological and pedagogical foundations of innovative technologies in education |
| 4 | Psychological support of innovative activity |
| 5 | Information technology in innovative education |
| 6 | Psychological support of educational space subjects |
| 7 | Psychological resources of educational space subjects |
| 8 | Innovative potential of educators and psychologists: intellectual and personal characteristics |
| 9 | Innovative approaches to education for persons with disabilities |
| 10 | Professional representations in education |
| 11 | Social teacher in educational space |
| 12 | Professional and social identity formation of youth in conditions of education modernization |
| 13 | Psychological and pedagogical foundations of interaction in elementary school |
| 14 | Innovative technologies of training and education of pre-school children |

ORGANIZING COMMITTEE:

Chairman: A.K. Belousova, Head of Educational Psychology Department of Education and Applied Psychology Faculty at Southern Federal University, Director of REC "Center for

Cognitive Studies of multi-cultural and multi-ethnic educational space of the South of Russia", PhD, Professor.

The co-chairs of the organizing committee:

1. P.N. Ermakov, Dean of Psychology Faculty at SFU, member of Russian Academy of Education, PhD, Professor.
2. R.M. Chumicheva, Dean of Education and Applied Psychology Faculty at SFU, PhD, Professor;
3. S.F. Hlebunova, Rector of Rostov Institute of Further Training and Retraining of Educators, PhD, Professor.

Deputies of co-chairs of the organizing committee:

1. I.V. Abakumova, Head of General Psychology and Developmental Psychology Department of Psychology Faculty at SFU, corresponding member of the Russian Academy of Education, PhD, Professor;
2. N.P. Petrova, Head of research laboratory of professional information pedagogy and methodology of teaching technology at SFU, PhD, Professor;
3. T.N. Sherbakova, Head of Psychology Department at Rostov Institute of Further Training and Retraining of Educators, PhD, Professor.

Members of the organizing committee: L.V. Abdulmanova (Russia, Rostov-on-Don), L. Abrosimova (Russia, Rostov-on-Don), E.A. Azarova (Russia, Rostov-on-Don), V.P. Bederhanova (Russia, Krasnodar), M. Bogdanova (Russia, Rostov-on-Don), O.G. Block (Kazakhstan, Karaganda), R.M. Chumicheva (Russia, Rostov-on-Don), A.Y. Goloborodko (Russia, Rostov-on-Don), V.M. Gribennikova (Russia, Krasnodar), T. Zaharuk (Poland), I.V. Kazimirskaya (Belarus, Minsk), N.N. Kochetova (Wertzinskaya) (Russia, Krasnodar), A. Klim-Klimashevskaya (Poland), E.P. Kryshchenko (Russia, Rostov-on-Don), V. Mertin (Czech Republic, Prague), Y.A. Mochalova (Russia, Rostov-on-Don), N.N. Mozgovaya (Russia, Rostov-on-Don), T.V. Pavlova (Russia, Rostov-on-Don), K. Petrova (Bulgaria, Sofia), E.I. Rogov (Russia, Rostov-on-Don), L.I. Ryumshina (Russia, Rostov-on-Don), M.L. Skuratovskaya (Russia, Rostov-on-Don), E.N. Sorochinskaya (Russia, Rostov-on-Don), A.P. Smancer (Belarus, Minsk), N.B. Shevkierova (Russia, Elista), Yu.A. Tushnova (Russia, Rostov-on-Don), M.A. Vyshkvyrkina (Russia, Rostov-on-Don).

PROGRAM COMMITTEE:

Chairman: A.K. Belousova, Head of Educational Psychology Department of Education and Applied Psychology Faculty at Southern Federal University, Director of REC "Center for Cognitive Studies of multi-cultural and multi-ethnic educational space of the South of Russia", PhD, Professor.

Members of the program committee: I.V. Abakumova (Russia, Rostov-on-Don), M.R. Amirbekova (Kazakhstan, Karaganda), J. Arsenijević (Serbia, Kikinda), S. Babayan (Armenia, Vanadzor), A.S. Berberyan (Armenia, Yerevan), A.V. Chernaya (Russia, Rostov-on-Don), F. Colucci (Milan, Italy), P.N. Ermakov (Russia, Rostov-on-Don), O.D. Fedotova (Russia, Rostov-on-Don), T. Grujic (Serbia, Kikinda), N.V. Kovaleva (Russia, Maikop), S.I. Masalova (Russia, Rostov-on-Don), N. Mazachova (Czech Republic, Prague), N.P. Petrova (Russia, Rostov-on-Don), I. Plotka (Latvia, Riga), E. Rangelova (Bulgaria), T.N. Sherbakova (Russia, Rostov-on-Don), L. Stosik (Serbia, Aleksinac), K. Veverková (Czech Republic, Prague).

CONDITIONS OF PARTICIPATION:

Theoretical, problem-related, theoretical-empirical (including experimental) materials of up to 20,000 characters are accepted for publication.. Graduate students after the references must indicate the name of the academic advisor, scientific degree, academic rank, university.

Collected materials will be edited and published prior to the conference, followed by distribution to leading libraries of the Russian Federation and assigning of the international index ISBN.

Submissions and applications for participation in the conference is carried out by the Organizing Committee - **from May 01, 2014 to October 28, 2013**

The deadline for informing the authors of acceptance or rejection of materials - **November 15, 2014** (on the website **www.ipsop.sfedu.ru**).

Materials received after October 28, 2013, will not be accepted!

Important dates:

- Notifying the participants on the acceptance of abstracts for presentation: on the website **www.sfedu.ru** **Mach 1th**
- Announcing the Conference program and the order of presenters: on the website **www.sfedu.ru** **November 15th 2014**
- Registration fee payment deadline: **November 21th 2014**
- Date of the Conference: **November 20-21th 2014**

Forms of participation in the conference:

- Keynote address;
- Section report;
- Poster presentation;
- Participation in the conference without a report;
- Distant participation.

Official languages: **Russian and English.**

The materials are provided via e-mail attachments to the Organizing Committee akbelousova@sfedu.ru with the indication in the subject area of the scientific field of the conferences. Participant sends two files:

- 1) paper (see "Requirements for Papers");
- 2) application (see "Application for participation in conference").

Files with the materials should be called by the last name of the author or of the first in the list of authors (*for example, "Ivanov_paper", "Ivanov_application"*).

Upon receipt of the materials, the organizing committee within 10 days sends an e-mail letter to the author "The materials are accepted", with the terms of payment date, registration fee and postage costs. The authors who send materials by e-mail and have not received confirmation of receipt by the organizing committee, please duplicate request.

After the Organizing Committee reviewed the paper and accepted it for publication, the participant sends three files to the Organizing Committee (akbelousova@sfedu.ru) indicating in the subject area the scientific field of the conference:

- 1) paper;
- 2) application;
- 3) scan-copy (or legible digital photograph) of the receipt of the registration fee, paper and postage costs.

All three documents are submitted at the same time in a single archive file format RAR or ZIP. The file name indicates the number of section (no points) and last name of the first author, *for example, "2Ivanov.rar."*

TERMS OF PAYMENT:

Registration fee in the conference - **30 € or 45\$**

Discount for graduate and undergraduate students - **20 € or 25\$**

Transportation expenses and the cost of living are paid by the sending party or the conference participant.

Bank details for payment of the publication

:56: INTERMEDIARY:

SWIFT: COBADEFF, BLZ 50040000

COMMERZBANK AG,FRANKFURT AM MAIN, GERMANY

:57: BENEFICIARY BANK:

SWIFT: CCIVRU2R

CENTR-INVEST BANK, ROSTOV-ON-DON, RUSSIA,

:59: BENEFICIARY:

/40503978700001000010

SOUTHERN FEDERAL UNIVERSITY

344006 ROSTOV-ON-DON

RUSSIAN FEDERATION

REQUIREMENTS FOR PAPERS:

Size - 5 pages of text. A4 size. Line spacing - 1.5. Margins - 2.5 cm on all sides. Font - Times New Roman. Size - 14. New paragraph - 10 mm. Width adjustment.

The structure of the material must be in a specific sequence.

Given (each time a new line *through the 1.0 spacing*):

- Universal Decimal Classification in the upper left corner in **bold** face;
 - Name of the author (or authors) and initials - in *italics* in the upper right corner, lower case letters, without specifying the degree and rank;
 - Country, city, organization, and all - in *italics*, *in the upper right corner*;
 - Name of the report: printed in capital letters, **bold** face, centered;
- Then - **text of the paper/report**

Abstract

- Abstract should contain a maximum of 250 words. The abstracts should avoid any abbreviations and mathematical formulas.

- Keywords should include 4-6 key words.

Text Formatting

- Manuscripts should be submitted in Word, A4, Times New Roman, 12-point for abstract and keywords and 14-points for text.
- For numerations of pages use the automatic page numbering function.
- In text for emphasis use italics.
- The use of abbreviations should be avoided. If using the first Abbreviations should be used throughout the text the same.
- For headings use maximum three levels.
- Footnotes should be avoided.
- Acknowledgments should be placed in a separate section before the reference list.

References

Citation

- Citations of books, book chapters, or journal articles in the text or in footnotes should be given in a shortened form: author name(s), year and page number or paragraph.

Reference list

- Reference list should only include works that have been published or accepted for publication. Unpublished works should be only mentioned in the text. Reference list should be with the bibliographic details of the cited books, book chapters, or journal articles.
- Reference list entries should be alphabetized by the last names of the first author of each work.

Citation of Books

- Author's surname Initial(s) of the given name(s) (Year of Publication) Title of Book, Volume number (if relevant), edition (if relevant). Publisher, Place of Publication

Citation of Articles

- Author's surname Initial(s) of the given name(s) (Year of publication) Title of article. Journal Volume number (and issue number if issues within a volume number are not consecutively paginated): Number of first and last page of article

Citation of Websites

- Author's surname Initial(s) of the given name(s) (if known) title, type of document (if relevant), date of issue (if available), web address and date of access, if the document or the website may be subject to change.

Tables

- All tables are to be numbered using Arabic numerals.
- Tables should always be cited in text in consecutive numerical order.
- For each table, please supply a table caption (title) explaining the components of the table.
- Identify any previously published material by giving the original source in the form of a reference at the end of the table caption.
- Footnotes to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data) and included beneath the table body.

For the best quality final product, it is highly recommended that you submit all of your artwork – photographs, line drawings, etc. – in an electronic format.

Electronic Figure Submission

- Supply all figures electronically.
- Indicate what graphics program was used to create the artwork.
- For vector graphics, the preferred format is EPS; for halftones, please use TIFF format. MS Office files are also acceptable.
- Vector graphics containing fonts must have the fonts embedded in the files.
- Name your figure files with "Fig" and the figure number, e.g., Fig1.eps.
- Scanned line drawings and line drawings in bitmap format should have a minimum resolution of 1200 dpi.
- All figures are to be numbered using Arabic numerals.
- Figure captions begin with the term Fig. in bold type, followed by the figure number, also in bold type.
- If you include figures that have already been published elsewhere, you must obtain permission from the copyright owner(s) for both the print and online format.

WORKSHOPS, ROUND TABLES

At the conference will be held round-table discussions, workshops and presentations on the stated issues.

The Organizing Committee may consider the suggestions of the participants on the organization of presentations, round tables and workshops.

Participants suggestions on the organization of presentations, round tables, workshops should be documented in accordance with the requirements (see " Participant suggestions on organization of conference events") and send by e-mail the attached file to the Organizing Committee (akbelousova@sfedu.ru), with the indication in the subject area "Suggestions on the organization of the conference events" **until October 10, 2014.**

CONTACTS

Executive secretaries - Tatiana Pavlova (+79085141315), Maria Vyshkvyrkina (+79094348837), Julia Tushnova (+79604607364); e-mail: akbelousova@sfedu.ru

Organizing Committee Address: Russia, 344038, Rostov-on-Don, str. Lenina, 92, office 217, Educational Psychology Department; e-mail: akbelousova@sfedu.ru

Conference website

www.ipsop.sfedu.ru

e-mail:

akbelousova@sfedu.ru

PARTICIPANT SUGGESTION ON ORGANIZATION OF EVENTS OF CONFERENCE
"INNOVATIVE POTENTIAL OF EDUCATIONAL SPACE SUBJECTS IN THE CONDI-
TIONS OF EDUCATION MODERNIZATION"

| | |
|---|--|
| Last name | |
| First name | |
| Place of work (full name) | |
| Position | |
| Degree | |
| Academic rank | |
| Postal address of organization (with postal code) | |
| Phone: | |
| E-Mail | |
| Type of planned event (<i>presentation, workshop, round table, other</i>) | |
| Scientific field of the conference of planned even | |
| Event's theme | |
| Aims of event | |
| Model pattern of event | |
| Anticipated participants | |
| Estimated number of participants | |
| Requirements for technical equipment | |
| Limitations | |

Registration form:

**«INNOVATIVE POTENTIAL OF EDUCATIONAL SPACE SUBJECTS IN THE
CONDITIONS OF EDUCATION MODERNIZATION»**

| | |
|---------------------------------|--|
| Last name | |
| First name | |
| Organization (full name) | |
| Position | |
| Degree | |
| Academic rank | |
| Postal address with postal code | |
| Contact information: tel. | |
| E-mail | |
| Title of the paper | |
| Scientific topic | |
| Participation | <ul style="list-style-type: none"> - Keynote address; - Section report; - Poster presentation; - Participation in the conference without a report; - Distant participation (<i>leave necessary</i>) |

| | |
|-------------------------------------|---------------------------------------|
| | one) |
| Whether the place to stay is needed | Yes/no (leave necessary one) |
| Fee | <u>30 €</u> or <u>45\$</u> |

| For graduate and undergraduate students | |
|---|--|
| Last name | |
| First name | |
| Place of study (full name) | |
| Postal address with postal code | |
| Education level | Graduate student, undergraduate student (leave necessary one) |
| Direction of training, specialty | |
| Last name and first name of academic advisor | |
| Degree and academic rank of academic advisor | |
| Phone numbers - work, home, mobile. | |
| E-mail | |
| Name of paper | |
| Scientific field of the conferences for the paper | |
| Participation | <ul style="list-style-type: none"> - Keynote address; - Section report; - Poster presentation; - Participation in the conference without a report; - Distant participation (leave necessary one) |
| Whether the place to stay is needed | Yes/no (leave necessary one) |
| Payment: | |
| Fee | <u>30 €</u> or <u>45\$</u> |